

Wolfgang Dorow

Revision of the ant genus
Polyrhachis SMITH, 1857
(Hymenoptera: Formicidae: Formicinae)
on subgenus level with keys, checklist of
species and bibliography

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Keywords

Insecta, Hymenoptera, Formicidae, Formicinae, *Polyrhachis*, key, synonymic list, bibliography

Abstract

The large ant genus *Polyrhachis* is revised on the subgenus level. The subgenus *Myrmhopla* is divided into species-groups. A checklist of all fossil and recent species, including synonyms is given. Besides historical remarks on the genus, keys are provided for the subgenera, for the species-groups of the subgenus *Myrmhopla*, and for some species of this subgenus. A bibliography for the genus is presented, which covers about 900 references.

Kurzfassung

Die umfangreiche Ameisengattung *Polyrhachis* wird auf Untergattungsebene revidiert, die Untergattung *Myrmhopla* wird in Artengruppen aufgeteilt. Eine Checkliste sämtlicher fossilen und rezenten Arten einschließlich ihrer Synonyme wird gegeben. Neben historischen Anmerkungen zur Gattung werden Bestimmungsschlüssel zu allen Untergattungen sowie zu den Artengruppen der Untergattung *Myrmhopla* und zu einigen ihrer Arten aufgeführt. Die Bibliographie der Gattung umfaßt ca. 900 Zitate.

Introduction

Ants are the dominating group of animals in many habitats. Especially in tropical rain forests they occupy key roles as predators, scavengers, and tenders of phloem-sucking insects. *Polyrhachis* is one of the largest ant genera in the world, mainly distributed over the Old World tropics. But in contrast to many other ants, this genus could establish itself in a wide range of habitats, whether arid zones or tropical rain forests, and in different strata from the ground layer to the canopy. In this genus many different ecological strategies occur, ranging from single to mass recruitment, monodomy to polydomy, monogyny to polygyny and small to very large colonies. Special characteristics of many species of the genus are the capability to weave nests with larval silk and the spination on the thorax and petiole, which is responsible for the name *Polyrhachis* (greek: polys = many, rhachis = ridge, spine [WHEELER 1956]).

The genus *Polyrhachis* today comprises 469 described species in 12 subgenera. Since EMERY's (1925) treatment in "Genera Insectorum" no comprehensive study on *Polyrhachis* has been published, but a large number of new species were described by BOLTON, DONISTHORPE, KARAWAJEW, KOHOUT, MENOZZI, SANTOSCHI and others. So a synopsis of this genus was highly desirable.

A taxonomic study of the genus *Polyrhachis* is made difficult by the enormous rate of speciation in that genus, which led to many highly specialized arboreal species, which are difficult to observe and collect. Also the wide distribution of these ants, ranging from Africa and Asia to Australia and Oceania, and the very different stage of knowledge about *Polyrhachis* complicate the situation. While the African species (BOLTON 1973b) are relatively well known, there are several undescribed species especially in New Guinea and Australia. As in many other insect groups, the knowledge about the biology is relatively poor, except for some remarks on the nesting sites. But especially in social insects, the behaviour has very often a key role for understanding phylogenetic interrelations. Only very few species are better known, as *P. laetipennis* (*P. simplex* auct.) (OFER 1970), *P. dives* (WASMAN 1905; SONAN 1912; TAKAHASHI 1937; TAKAMINE 1987; YAMAUCHI et al. 1987), *P. arachne* and *P. hodgsoni* (DOROW & MASCHWITZ 1990) and *P. muelleri* (DOROW et al. 1990). A few more informations are compiled in unpublished theses on *P. muelleri* (*P. spec. auct.*) (RAPP 1985), *P. laboriosa* (MERCIER 1992), *P. bicolor*, *P. dives*, *P. illaudata* and *P. muelleri* (LIEFKE 1993). Keys to species do exist only for the African *Polyrhachis* (BOLTON 1973b) and a few Australian and Asian species-groups (KOHOUT 1987; 1988a,b,c; 1989; 1990). I therefore undertook several research trips to Southeast Asia and Australia and studied a large amount of museum material to compile a review on the genus *Polyrhachis*. This first part covers a complete synonymic list of the species described until the end of 1993 and as complete a bibliography of the genus as possible. The author will be very much obliged to every reader who supplies additional information on literature.

History of the higher classification of the genus

The genus *Polyrhachis* was first mentioned in 1840 by SWANSON and SHUCKARD as "*Polyrhachis* SHKD." Because there was neither a description of the genus nor an assignment of species, this name has to be treated as nomen nudum. BILLBERG had before that

(1820) created the new genus *Myrma*, without further descriptions, for the African species *Formica carinata* and *F. militaris*, but this name fell into oblivion. SMITH (1857) was the first to describe the genus *Polyrhachis*. Therefore he has to be accepted as the author. GERSTAECKER (1858) claimed, that SHUCKARD had given the name *Polyrhachis* already to another genus of Hymenoptera, therefore he created the new name *Hoplomyrma*. ROGER (1861) - after corresponding with SMITH - pointed out that GERSTAECKER's claim was unfounded and restored the name *Polyrhachis*. WHEELER (1911) found the lost name *Myrma* and synonymized *Polyrhachis*, but in 1915 returned without comment to the usage of *Polyrhachis*, probably agreeing with several authors like EMERY, FOREL, and SANTSCHI, who had argued for keeping the well known name (FOREL 1915). In his study on the subgenera, HUNG (1967) stated "That is to say, *Myrma* is still the strictly valid generic name for this group of ants. Nevertheless, in this revision, the name *Polyrhachis* is retained, and this nomenclatural problem will be left to future revisers and the deliberations of the International Commission". But HUNG never asked the Commission for suppressing *Myrma* BILLBERG, 1820, as nomen oblitum as already EMERY, FOREL und SANTSCHI had suggested (FOREL 1915). I have therefore asked the Commission for a decision.

MAYR (1867, 1878) was the first who tried to define subgroups within the large genus *Polyrhachis*. He distinguished (1867) six "turmae" which he described and named after characteristic species:

- I. Turma: *Rastellata*
- II. Turma: *Armata*
- III. Turma: *Bihamata*
- IV. Turma: *Annon*
- V. Turma: *Relucens* (divided into 3 subgroups without names)
- VI. Turma: *Abrupta* (including the genus *Hemioptica*)

In 1878 MAYR called these "turmae" "Gruppen" and changed the order of precedence of "turma II" and "turma III". He also divided the "turma *Annon*" into two nameless subgroups and the first of those into three additional subgroups. MAYR added a large number of species to this system and extended the descriptions of the groups. As characteristics he used sculpturing, pubescence, spination (place, number, form), margination of head and thorax, sutures of the thorax, place and form of the eyes, head width and arching of the head.

EMERY (1896, corrected and extended in 1898) discriminated - continuing MAYR's (1878) usage - four "cohorts" (= "coortes") each with several "manipuli" (= "manipoli"), which he numbered and for which he

already fixed type-species. While describing his "cohorts", he only listed species under the "manipuli". For discrimination he used similar characters as MAYR. WHEELER (1911, 1920) was the first to create subgenera of *Polyrhachis* (*Myrma* sensu WHEELER) for EMERY's "cohorts".

FOREL (1915) maintained EMERY's (1896, 1898) systematics, but restricted the subgenus *Campomyrma* to the first two "manipuli" of "cohors *Polyrhachides camponotiformes*" and replaced the "manipulus *P. thrinax*" with the new subgenus *Myrmothrinax*. He took the "turma *Rastellata*" sensu MAYR (1867, 1878) out of the subgenus *Myrma* sensu WHEELER (1911) as new subgenus *Cyrtomyrma*. Also the subgenus *Hagiomyrma* sensu WHEELER (1911) was divided by FOREL: the "manipulus *P. armata*" became the subgenus *Myrmhopla Polyrhachis* (, the "manipulus *P. guerini*" the subgenus *Chariomyrma*, the "manipulus *P. ornata*" the subgenus *Hedomyrma*. For the "Gruppe *Wallacei* EM. Schang FOR. etc." FOREL suggested the new subgenus *Myrmatopa* with *P. schang* as type species. But a group *Wallacei* or *Schang* was never created. EMERY (1896) included *P. wallacei* in "manipulus *P. ammon*" of "cohors *Polyrhachides camponotiformes*", while he listed *P. schang* under "species incertae sedis". In 1919 MANN created the subgenus *Dolichorhachis* for the new species *P. malaensis*. EMERY (1921a) established *Aulacomyrma* for the species *P. porcata* and in 1921 added *P. dohrni* and *P. exarata* of "manipulus *P. femorata*" of "cohors *Polyrhachides camponotiformes*", *P. excellens* and *P. serrata* (before species incertae sedis). *P. fervens* and *P. dolichocephala* were placed in the subgenus *Dolichorhachis* and the new subgenus *Pseudocyrtomyrma Polyrhachis* (with African species was taken out of the subgenus *Cyrtomyrma Polyrhachis* (sensu FOREL (1915). Already MAYR's groups are largely conform to the subgenera in "Genera Insectorum" (EMERY 1925), which is the last synopsis of the whole genus. EMERY (1925) also subdivided several subgenera into species-groups, which he did not describe (see below). Table 1 summarizes the changes in the history of the higher classification from MAYR (1867) to EMERY (1925) in a generalized way.

In the following years a few authors created some new subgenera for single new species: *Johnia* for *P. schizospina* (KARAWAJEW 1927), *Cephalomyrma* for *P. stylifera* (KARAWAJEW, 1935), *Evelyna* for *P. cheesmanae* (DONISTHORPE 1937a), *Florencea* for *P. kirkae* (DONISTHORPE 1937b), *Morleyidris* for *P. trina* (DONISTHORPE 1944) and *Anoplomyrma* for *P. porcata* (CHAPMAN 1963). Summed up, 20 subgenera have been described so far in the genus *Polyrhachis*.

Tab. 1: Changes of the higher classification in the genus from MAYR (1878) to EMERY (1925).

MAYR (1878)	EMERY (1896, 1898)	WHEELER (1911)	FOREL (1915) and EMERY (1925)
Genus <i>Polyrhachis</i>	Genus <i>Polyrhachis</i>	Genus <i>Myrma</i>	Genus <i>Polyrhachis</i>
Gruppe <i>Ammon</i> 2	Cohors I. <i>Polyrhachides camponotiformes</i>	<i>M. (Camponomyrma)</i>	
	Manipulus 1 (<i>P. clypeata</i>)	"	<i>P. (Camponomyrma)</i>
	"	"	<i>P. (Myrmatopora)</i>
	Manipulus 2 (<i>P. fentorata</i>)	"	"
	Manipulus 3 (<i>P. thrinax</i>)	"	<i>P. (Myrmothrinx)</i>
Gruppe <i>Relucens</i>	Cohors II. <i>Polyrhachides carinatae</i>	<i>M. (Myrma)</i>	
1. African and Asian species with two pairs of teeth or two pairs of spines on the petiole, whether with or without a median tooth			
2. African or Asian species with a lateral tooth-spine combination on each side of the petiole			
3. Asian species with two teeth on the petiole			
	Manipulus 1 (<i>P. punctillata</i>)	"	<i>P. (Myrma)</i>
	Manipulus 2 (<i>P. relicens</i>)	"	"
	Manipulus 3 (<i>P. abrupta</i>)	"	"
	Manipulus 4 (<i>P. revolt</i>)	"	"
	Manipulus 5 (<i>P. rastellata</i>)	"	<i>P. (Cyrtonomyrma)</i>
Gruppe <i>Rastellata</i> *	Cohors III. <i>Polyrhachides hamatae</i>	<i>M. (Polyrhachis)</i>	<i>P. (Polyrhachis)</i>
Gruppe <i>Bihamata</i>	Manipulus 1 (without type species)	"	"
"	Manipulus 2 (without type species)	"	"
"	Cohors IV. <i>Polyrhachides acitferae</i>	<i>M. (Hagioomyrma)</i>	
Gruppe <i>Ammon</i> 1b	Manipulus 1 (<i>P. ammon</i>)	"	<i>P. (Hagioomyrma)</i>
Gruppe <i>Ammon</i> 1c	Manipulus 2 (<i>P. ornata</i>)	"	<i>P. (Hedomyrma)</i>
Gruppe <i>Ammon</i> 1a **	Manipulus 3 (<i>P. guerini</i>)	"	<i>P. (Charlomyrma)</i>
Gruppe <i>Ammon</i> 1b	Manipulus 4 (<i>P. cryptoceroideis</i>)	"	<i>P. (Hagioomyrma)</i>
Gruppe <i>Armata</i>	Manipulus 5 (<i>P. armata</i>)	"	<i>P. (Hagiohopla)</i>
Gruppe <i>Ammon</i> 1b	Manipulus 6 (<i>P. atalanta</i>)	"	<i>P. (Hagioomyrma)</i>
Gruppe <i>Abrupta</i> ***	Genus <i>Hemioptica</i>	<i>M. (Hemioptica)</i>	<i>P. (Hemioptica)</i>

* MAYR's "Gruppe *Rastellata*" included also today's new *P. (Myrmothopla) mucronata*-group.** The "Gruppe *Ammon* 1a" included also some species of today's subgenus *Camponomyrma*.*** The "Gruppe *Abrupta*" included also some species of today's subgenus *Myrma*.

HUNG (1967) revised the genus on the subgenus level. After a confusing discussion he came to the result: "...that all the subgenera in this genus except perhaps *Cyrtomyrma* and *Polyrhachis* (sens. str.) are so intergradient with one another that a clear delimitation is not found between any two related groups. Subgenus *Polyrhachis* may be a good genus by itself...". He formally synonymized 5 subgenera but nevertheless discussed their phylogeny afterwards. *Hemioptica* was accepted by him as a valid genus. In 1970 he stated: "As for the subgenera, only the subgenus *Polyrhachis* (and perhaps also the subgenus *Cyrtomyrma*) is a well defined group. No clear delimitation can be found among the other subgenera, and they should be treated as species-groups rather than as subgenera."

Several authors (see below) have tried so far to divide the subgenera into species-groups for two reasons: 1. to define well marked subgroups within the subgenera and 2. to create a substitute for those subgenera whose monophyletic origin is not well established (such groups are no valid taxonomic units in the sense of the International Code of Zoological Nomenclature [RIDE et al. 1985]). EMERY (1925) created species-groups of the first kind for the subgenera *Campomyrma* (*clypeatagroup-femorata*; *halidayi*), *Myrmatopa* (*wallacei*; *schang*), *Polyrhachis* (*bihamata*; *lameillidensis*), *Charomyrma* (*arcuata*; *hostilis*), *Myrmhopla* (*armata*; *cryptoceroideus*; *dives*; *nigriceps*; *sex-spinosa*; *viehmeieri*) and *Myrma* (*abrupta*; *laboriosa*; *militaris-relucens*; *viscosa-decendens*; *zopyrus*). I have listed the species-groups at the beginning of each section on a subgenus. Where a modern revision was available, which uses species-groups, I have arranged the species list according to that grouping. This is only the case in the nominal subgenus (HUNG 1970; KOHOUT 1988b) and in *Myrmhopla*, which I revised on the species-group level and, in part, on the species level (in preparation). In the remaining cases the names are listed in alphabetical order.

ANDERSEN and MAJER (ANDERSEN & MAJER 1991, ANDERSEN 1992) used the subgenera (in quotation marks) in their recent papers, although a monophyletic origin has not been established for most of them. This procedure shows that the large genus has to be divided into subunits to be handled and that the subgenera do not seem to be as poorly delimited as HUNG (1967a) thought, if they are even useful for ecologists. KOHOUT & TAYLOR (1990) argued in a similar way, dealing with the Australian species. Our present state of knowledge, on the other hand, is not sufficient to prove the monophyletic evolution of these units. In addition the large subgenera have to be divided further once or twice. So an unequivocal hierarchical subdivision of the genus is necessary to

keep an overview of this large genus (and other comparable ones). I only see two ways:

- a) to keep the well known subgenera, although their monophyletic origin is far from certain, and add the species-group below this category.
- b) to establish the roman military hierarchy since MARIUS, introduced by EMERY (1896), i. e., "cohors" and "manipulus", probably enlarged by "legio" above the "cohors" and by "centuria" below "manipulus".

I prefer the first way, because the subgenus names are well known and have been used for a long time. I also do not want to substitute "subgenus" by "legio" or "cohors", for in my opinion no tool exists at the moment to confirm monophyletic origin. The cladistic methods can at best increase the probability of a hypothesis because the selection of characters depends on the scientist and also the interpretation of a character's value for a species does. In addition we have to recognize, that many cladistic studies do not even try to assess the value of a selected character for the species, not to speak about the changing value of characters in changing species in changing habitats (see below). Such a technocratic usage of HENNIG's ideas governed by wrong assumptions (e. g., the "most parsimonious tree" dogma) leads to little progress compared to the traditional methods. In fact it is barely more than the clear documentation of the characters used. Taking geographical, climatic and botanical data into account, it has to be assumed, on the contrary, that a "parsimonious" way of evolution is the rare exception, but not the rule (see also below in the discussion of the characteristics of the genus). AX (1984) argued that the outgroup comparison is the one and only method to confirm monophyletic origin while the knowledge of ecological influences would not be helpful. But I cannot follow his argumentation that a modification of a character shared by the outgroup and by a part of the group to be tested, should be with high probability the plesiomorph one. The choosing of the outgroup is a highly artificial procedure, which is often governed by a "knowledge" about this group, which comes from old and by no means cladistically founded sources, i. e., it can be misleading or leads to a vicious circle. If we accept *Oecophylla* or *Camponotus* (*Karavaievia*) as the outgroup, the weaving ability of many *Polyrhachis* species will be classified as a plesiomorph character, if we take *Camponotus* (*Myrmentoma*) it will be classified as apomorph.

Characteristics of the genus

BILLBERG (1820) did not describe his new genus *Myrma*, but only assigned the two African species

Formica carinata and *F. militaris* to it. SWAINSON & SHUCKARD (1840) created *Polyrhachis* as a nomen nudum. They merely described them as stingless ants, announced (PETERS 1862) but failed to provide a detailed description. SMITH (1857) was the first who gave a valid description of the genus: "Body more or less armed with spines. Antennae elongate, usually nearly as long as the body; labial palpi 4-jointed, the basal joint shortest, the three following, each in succession, longer than the preceding; the apical joint three times the length of the basal one. Maxillary palpi 6-jointed, elongate, the basal joint short, about half the length of the second joint, each of the following joints more than twice the length of the second joint. Thorax: subovate in the females; compressed and frequently flattened above in the workers; wings as in *Formica ligniperda*. Abdomen globose". In 1858 SMITH added: "...mandibles stout, their inner edge denticulate. Ocelli obsolete in the workers. Thorax more or less armed with spines or hooks; scale of the peduncle incrassate, usually spinose, having two, three or four spines. Wings with one marginal and two submarginal cells, the discoidal cells obsolete. Abdomen subglobose." MAYR (1862) saw in the enlarged first gaster segment the only clear characteristic of *Polyrhachis*. While in *Camponotus* this segment is only occasionally as large as the second one, in *Polyrhachis* it occupies half to 3/4 of the gaster's length. In 1868 MAYR again pointed out his difficulties in separating females and workers of both genera, but could not separate the males at all. FOREL (1879) also emphasized, that there is no clear cut between *Camponotus* and *Polyrhachis*, but nevertheless suggested, because of the amount of species involved, not to synonymize *Camponotus* with *Polyrhachis*. According to him, form of head and gaster are the most valuable but nevertheless not unequivocal characteristics. WROUGHTON (1892) reported, that the workers of *Polyrhachis* are more or less monomorphic. FOREL (1897) repeated his problems in separating *Polyrhachis* and *Camponotus*. He transferred *P. indica* MAYR, 1870 in the genus *Camponotus* and described this and his new species *Camponotus emeryi* as transition species to *Polyrhachis* ("...se rapproche comme lui du genre *Polyrhachis*"). BINGHAM (1903) also emphasized the similarity of the two genera and reported that also *Polyrhachis* species with a spineless thorax do exist.

The counted characteristics indeed are typical also for a large number of other ant genera: within the subfamily Formicinae spines are also present in the genera *Acantholepis*, *Camponotus* (e. g., *Camponotus myrmepomis sericeiventris* (MAYR, 1862) and *Camponotus (Myrmodirrhachis) heathi* MANN, 1916 have spines at the propodeum), *Echinopla*, *Forelophilus*, *Phasnomymex*, *Pseudonotanus*, *Santschiella* and *Teratomyrmex*. The species of *Camponotus* (Karava-

ievia are monomorphic just like *Polyrhachis* *Camponotus selene* (which had been placed into *Polyrhachis*) and the *Echinopla* species also possess a large first gastral segment. An important characteristic, overlooked by the early researchers, is the lack of the metapleural gland in *Polyrhachis* as a feature, that is only shared with the genera *Dendromyrmex*, *Oecophylla*, some species of *Camponotus* and socially parasitic ants of other genera (WHEELER & ENGEL-SIEGEL 1984; HÖLLDOBLER & WHEELER 1990).

A very interesting fact is the strong resemblance of many South American *Camponotus*- and *Dolichoderus*-species with *Polyrhachis*, which ~~undoubtedly~~ documents a convergent evolution. This fact exemplifies the evolutionary potency in different ant genera and the amazing amount of resemblance between unrelated animal-groups created by similar environmental conditions. Within the same genus probably fast convergent evolution and parallelism are leading to even stronger resemblances. It is clear that cladistic analysis without or nearly without discussing the importance of a character in connection with the environment are not very helpful at all. The results do not automatically give phylogenetic relations. Because contacts with other (suboptimal) habitats are the rule (for example passively due to a change in climate, or actively to range extension of the species), we have to take many and also conflicting adaptations into account. As these events are important for the interpretation of characters, I think, that cladistic methods are only rarely - by chance - helpful for the reconstruction of phylogenetic events. Important events for the genus *Polyrhachis* in this respects are especially:

- changing climate in North Africa, the Middle East and in the Indonesian-Australian area
- range extensions into the mountainous areas, especially into the Himalaya
- range extensions into habitats adjacent to the rain forest (before the influence of men especially into coastal areas).

At our present state of knowledge it must be considered quite possible that *Polyrhachis* is not really a monophyletic unit but evolved several times from *Camponotus*-like ancestors.

Nevertheless it seems recommendable to keep the genus *Polyrhachis* at the moment. The following combination of characters defines the genus sufficiently:

- metapleural gland always lacking
- first gaster segment large, covering about half of the total size of the gaster or more
- first gaster tergite much larger than second one

- thorax and/or petiole very often armed with spines or teeth 8
- no clear polymorphism
- many species use larval silk for nest construction
- many species are arboreal
- body size 5-12 mm

KEYS

(based on worker caste)

Key to subgenera of *Polyrhachis*

(including the *P. cryptoceroides*- and the *P. flavo-flagellata*-group)

- 1 African species [figs. 8, 9]
 - subgenus *Myrma* (part.)
 - (key to species in BOLTON [1973])
- Asian or Australian species 2
- 2 Mesothorax armed with spines [fig. 31]
 - Polyrhachis* s. str.
 - (keys in HUNG [1970] and KOHOUT [1988])
- Mesothorax without spines, but rarely teeth are present 3
- 3 Deep pro-mesonotal furrow present and thorax and petiole without spines [fig. 7]
 - subgenus *Hemioptica* 15
- No deep pro-mesonotal furrow or thorax and/or petiole armed with spines 4
- 4 First gaster segment proximally concave and on the top ending with a prominent ridge; petiole only with one tooth at each side [fig. 1]
 - subgenus *Aulacomyrma*
- First gaster segment at the most weakly concave but always without a prominent ridge at its top 5
- 5 Head very large and looking misproportioned; transition from top to flanks of thorax angled but without a distinct margination [fig. 21]
 - P. (Myrmhopla) flavoflagellata*-group 33
- Head not very large, if doubtful, thorax totally rounded or clearly marginate (species with relatively large heads are also found in the *P. cephalotes*- and in the *P. armata*-group) 6
- 6 Thorax short with a stout appearance 7
- Thorax elongated 9
- 7 Thorax rounded longitudinally as well as transversally; most species are black and shiny and have at the most short thoracic spines which never insert with a very broad base [fig. 4]
 - subgenus *Cyrtomyrma*
- Thorax rounded or marginate; not shiny black 8

Margination (if present) of thorax without lobes; spines of prothorax with broad base, oriented horizontally [fig. 18]

P. (Myrmhopla) cryptoceroides-group 31

Margination of thorax especially distally with lobes; usually with dense pubescence and several long hairs [fig. 3]

subgenus *Chariomyrma*

9 Thorax without margination, the thorax may be roundly angled at the most, giving it a box-like appearance; rarely the propodeal spines are arising from a ridge, marginating a more or less large part of the propodeum [figs. 11-29]

subgenus *Myrmhopla* (part.) 17

10 Thorax mostly or totally marginate 10

Pronotal spines larger than propodeal ones, the latter may be totally lacking; if petiole with three spines, the middle one not the longest [figs. 8, 9] subgenus *Myrma* (part.)

- Propodeal spines or teeth larger than pronotal ones 11

11 Petiole columnar, with three vertical spines whose bases are also columnar, with the central spine the longest [fig. 30] (only *P. (Campomyrma) pseudothrinax* HUNG, 1967b has also such a spination, but its petiole is scale-like and the spines are flat)

subgenus *Myrmothrinax*

- Spination of petiole different 12

Petiole with two long, pitchfork-like spines; pronotum often without margination; mesonotum and/or propodeum sometimes with teeth [fig. 10] subgenus *Myrmatopa*

- Spination of petiole different; thorax fully marginate 13

13 Spines of propodeum with broad bases, sometimes even plate-like, often with \pm rounded tips, orientated more or less horizontally and pointing backwards; petiole with four vertical spines, of which the two innermost ones are the longest in most species; margination of thorax without lobes; thorax \pm flat on top [fig. 2]

subgenus *Campomyrma*

- Spines of propodeum acute; orientation of petiolar spines not exclusively vertical, but also \pm orientated backwards 14

14 Petiole between the spines with a nearly horizontal plateau; pronotum mostly with short acute spines or teeth [fig. 6]

subgenus *Hedomyrma*

- Petiole without a plateau; pronotum usually only shouldered [fig. 5]

subgenus *Hagiomyrma*

Key to the species of the subgenus *Hemioptica*

- 15 Smaller (head length < 1.47 mm); the body covered with appressed silvery pubescence *P. bugnioni*
 - Larger (head length > 1.57 mm); the appressed pubescence virtually absent from all dorsal surfaces of the body 16
 16 Dorsum of mesosoma highly polished; the lateral angles of the petiole broadly, obtusely dentate sp. n. 1
 - Dorsum of mesosoma closely sculptured, semiopaque; the lateral angles of the petiole acutely spinose *P. scissa*

Key to species-groups of the subgenus *Myrmhopla*

(see key to subspecies for the *P. cryptoceroides*- and the *P. flavoflagellata*-group)

- 17 Petiole in side view cubic to rectangular, never scale-like 18
 - Petiole node- or scale-like 20
 18 Thorax with a box-like appearance, sometimes with a suggestion of a margination; body with short stout hairs [fig. 29] *viehneyeri*-group
 - Thorax totally immarginate 19
 19 Petiole spineless [fig. 26] *nigriceps*-group
 - Petiole with spines [fig. 28] *sexspinosa*-group
 20 Genae partially or fully marginate, if not, petiole spines with hook-like tips 21
 - Genae rounded, petiole spines not with hook-like tips 25
 21 Mesothorax armed with a small tooth at each side, sometimes only with a knob [fig. 16] (only *P. cephalotes*) *cephalotes*-group
 - Mesothorax unarmed 22
 22 Thorax strong and massive, often appearing somewhat inflated; thoracic spines strong, \pm horizontally orientated and never with a hook-like tip; spines of petiole oriented upwards and backwards, bent embracing the gaster; pubescence on gaster variable; long hairs are present only in very few species [figs. 12-14] *armata*-group
 - Thorax with long hairs and without a stout, inflated appearance 23
 23 Large (TL: 8-9 mm) amber coloured species [fig. 27] (only *P. ochracea*) *ochracea*-group
 - Small (TL: ca. 6 mm) species; genae marginate or immarginate [fig. 22] *furcata*-group 35
 24 Thorax with numerous long hairs 25
 - Thorax without or only with few long hairs 26

- 25 Frontal carinae large and widely separated [fig. 17] *cleophanes*-group
 - Frontal carinae normal [fig. 15] *bicolor*-group
 26 Propodeum and petiole with long spines; pronotum unarmed or weakly armed; thorax rounded transversally and in many species also longitudinally (but not as strong as in *P. (Cyrtomyrma)* spp.) [figs. 24, 25] *mucronata*-group
 - Pronotum with strong spines 27
 27 Spines of propodeum with curved or hook-like tips 28
 - Spines of propodeum with strait tips 29
 28 Spines of propodeum only with weakly curved tips [fig. 20] *dives*-group
 - Spines of propodeum with hook-like tips; on bamboo [fig. 11] *arachne*-group 30
 29 Scapes and tibiae \pm round in cross-section; small, amber coloured species, resembling Myrmecaria species and living in close contact with them [fig. 19] (only *P. daphne*) *daphne*-group
 - Scapes and hind tibiae flattened; large species (TL: 8-10 mm) [fig. 23] *hector*-group 38

Key to species of the *P. (Myrmhopla)* *arachne*-group

- 30 Gaster shiny; pavillons below bamboo leaves *P. arachne*
 - Gaster mat; pavillons in longitudinally rolled bamboo leaves *P. hodgsoni*

Key to species of the *P. (Myrmhopla)* *cryptoceroides*-group

- Thorax short and broad, distinctly marginate; bases of spines very broad; spines orientated \pm horizontally; black *P. cryptoceroides*
 - Thorax not or not distinctly marginate; spines of propodeum with smaller bases and somewhat upright orientated; not uniformly black 32
 32 Thorax with a suggestion of a margination, less distinct than in *P. cryptoceroides*; body black, appendages yellow-reddish brown *P. jerdonii*
 - Thorax without margination, appearing somewhat inflated; appendages amber coloured with blackish nodes *P. wroughtonii*

Key to species of the *P. (Myrmhopla)* *flavoflagellata*-group

- 33 Lateral spines of petiole acute
- *P. flavoflagellata*
- Lateral spines of petiole truncate *P. stylifera*

Key to species of the *P. (Myrmhopla)* *furcata*-group

- 34 Petiole with strong hook-like spines
- *P. furcata*
- Spines on petiole not hook-like, at most the tips with little barbs 35
35 Petiole a long stalk, on its top two spines, pointing backwards and weakly upwards, the tips bent down hook-like
- *P. tragos*
- Petiole not stalk-like 36
36 Head black, above the eyes smooth and shiny, rest of body amber coloured *P. gracilior*
- Head like the rest of the body coloured reddish-brownish, sculpture above the eyes coarse and not shiny 37
37 Coarse sculpture on upper head not extended below the eyes; proximal triangle of petiole with marginate borders *P. rufipes*
- Coarse sculpture on upper head extended below the eyes; proximal triangle of petiole immarginate *P. etheli*

Key to species of the *P. (Myrmhopla)* *hector*-group

- 38 Gaster coloured metallic green or blue 39
- Gaster black, brownish or reddish, without metallic colouration 40
39 Gaster mat *P. tubifex*
- Gaster shiny *P. chalybea*
40 Whole body black and shiny; thorax massiv; propodeal spines very long and diverging; hind tibiae without rows of spines *P. venus*
- Thorax less massiv; not entirely shiny; spines of propodeum shorter; gaster often reddish 41
41 Top of gaster not or only very little pubescent; sculpture only a weak fingerprint-like transverse striation and fine scattered punctuation
- *P. pressa*
- Top of gaster pubescent; sculpture a fine dense punctuation 42
42 Spines of the petiole inserting distantly from each other, therefore the interspace between them is U-shaped 43

- Spines of the petiole inserting close to each other, therefore the interspace between them is V-shaped 47
43 Propodeal spines shorter than length of propodeum; tips of petiolar spines strait and spines relatively short *P. oedipus*
- Propodeal spines clearly longer than propodeum 46
44 Tips of petiolar spines bent downwards hook-like; hind tibia at its underside with a row of at most four spines *P. curvispina*
- Tips of petiolar spines not hook-like 47
45 Head in frontal view round to oval, but never markedly elongate, above the eyes short and converging, i. e. not parallel-sided; head in side view \pm semicircular; scapes long, reaching beyond the occipital margin with about half their length; maxillary palps, layed against the head's lower surface, reaching beyond the frontal margin of the eyes *P. binghami*
- Head elongate in frontal view, above the eyes the sides are parallel for some distance; cheeks very long and parallel; head in side view flat, not semicircular; less than 1/3 of the scape's length surpassing the occipital margin of the head 47
46 Ocelli present; maxillary palps, when layed against the head's lower surface, reach the frontal margin of the eyes sp. n. 2
- Ocelli lacking; maxillary palps, when layed against the head's lower surface, not reaching the frontal margin of the eyes sp. n. 3
47 Maxillary palps much longer than the head; petiole in sideview \pm triangular; scapes very long and slender, not as obviously flattened as the hind tibiae; very slender species *P. muelleri*
- Maxillary palps shorter than the head; petiole quadrangular or nodiform; scape broader and flattened as much as the hind tibiae 48
48 Urterside of hind tibia without a row of spines, only at the distal end of the tibia near the spur some spines are usually present *P. abdominalis*
- In addition to the spines near the spur, the bending side of the hind tibia bears at each side a row of spines 49
49 Propodeum with long and slender spines; spines of petiole curved a little downwards at the top; gaster sometimes brownish or blackish without red; mesothorax saddle-like concave; transition between mesothorax and propodeum as an elevated ridge: slender species *P. mutata*

Propodeal spines shorter; spines of petiole strait; gaster always reddish (only individuals recently emerged from the pupa are coloured uniformly light brownish - these specimen can be collected outside the nest already!)

P. hector

Synonymic list of species

(Remark: W. KARAWAJEW transliterated his name in most of his studies on *Polyrhachis* as „KARAWAJEW“. This transliteration is also used in this study. Only in his first two papers the Ukrainian scientist spelled his name as „KARAWAJEW“. Several English authors are citing him as „KARAWAJEV“).

Genus *Polyrhachis* SMITH

Formica LINNAEUS, 1758: 579 partim [sensu FABRICIUS, 1782. LATREILLE, 1802]

Myrma BILLBERG, 1820: 104. Type-species:

Formica militaris FABRICIUS, 1782: 493 by subsequent designation of WHEELER, 1911: 859. [nomen oblitum, applied to the International Commission on Zoological Nomenclature]

Polyrhachis SHUCKARD, 1840: 172; MAYR, 1862: 677; ROGER, 1863: 6; MAYR, 1865: 38; 1867: 60; 1872: 138; ANDRÉ, 1887: 286; WROUGHTON, 1892: 35; DAHL, 1901: 14 [nomen nudum, only announcement of publication in SWAINSON & SHUCKARD, 1840: 172]

Polyrhachis SMITH, 1857: 58. Type-species: *Formica bihamata* DRURY, 1773: 73 by original designation.

Hoplomyrmus GERSTAECKER, 1859: 261. Type species: *Hoplomyrmus schistaceus* GERSTAECKER, 1859: 262, by monotypy. [synonymy by ROGER, 1861: 174]

Camponotus MAYR, 1861: 35 partim [sensu FOREL, 1879: 110]

Hemioptica ROGER, 1862: 238. Type species: *Hemioptica scissa* ROGER, 1862: 240, by monotypy. [synonymy by MAYR, 1867: 62; stat. rev. Later again synonymy by several authors, see subgenus *Hemioptica*: synonymy by BROWN, 1973: 181]

Polyrhachis SMITH; BINGHAM, 1886: 405; WROUGHTON, 1892: 21; ROUBIK, 1989: 222; GREENSLADE, 1978: 110 + 111; 1979: 35 + 37; GREENSLADE & THOMPSON, 1981: 204; BRIAN, 1983: 96 [misspelling]

Polyrhachis SMITH; FOREL, 1901c: 302 [misspelling]

Polyrrachis SMITH; KERSHAW, 1907: 67; CLARK, 1926: 456 [misspelling]

Polyrhachis SMITH; HASKINS, 1970: 360 [misspelling]

Polyrrhachis SMITH; MARKL, 1973: 264 [misspelling]

Subgenus *Aulacomyrma* EMERY [fig. 1]

Polyrhachis (*Aulacomyrma*) EMERY, 1921a: 17.

Type-species: *Polyrhachis porcata* EMERY, 1921a: 20, by original designation.

Polyrhachis (*Johnia*) KARAWAJEW, 1927: 43.

Type-species: *Polyrhachis* (*Johnia*) *schizospina* KARAWAJEW, 1927: 44, by monotypy. [synonymy by HUNG, 1967a: 402]

Polyrhachis (*Aulacomyrma*), CHAPMAN & CAPCO, 1951: 256 [misspelling]

EMERY (1921) described the subgenus as: "first gaster segment occupying a large part of the gaster, elevated anteriorly and protruding beyond the biconvex petiole scale. The scale has a sharp upper margin and a tooth at each side. Thorax stout, partially marginate. Pronotum with teeth or spines. The sculpture consists of regularly engraved more or less coarse furrows" (own translation). EMERY (1925) added: "meso-epinotal-suture lacking; propodeum truncate posteriorly, obtusely dentate: first gaster segment covering about 2/3 of the entire gaster, proximally it is concave to envelope the scale; this concave part is ending dorsally in a ridge that is elevated above the level of the gaster; the body sculpture described above sometimes also on the gaster" (own translation).

The *Aulacomyrma* species are small (TL: < 8 mm), the thorax is more or less marginate, the genae are always marginate. As far as known, they are rare weaver ants which are restricted to New Guinea and nearby islands.

The subgenus comprises seven species.

Distribution: Bismarck-Archipelago, Indonesia, New Guinea

List of species:

Polyrhachis dohrni* FORELPolyrhachis dohrni* FOREL, 1901b: 34***Polyrhachis exarata* EMERY***Polyrhachis exarata* EMERY, 1887a: 226***Polyrhachis excellens* VIEHMEYER***Polyrhachis excellens* VIEHMEYER, 1912: 14***Polyrhachis geometrica* SMITH***Polyrhachis geometrica* SMITH, 1859: 141***Polyrhachis pallipes* DONISTHORPE***Polyrhachis pallipes* DONISTHORPE, 1948b: 603***Polyrhachis porcata* EMERY***Polyrhachis porcata* EMERY, 1921a: 20***Polyrhachis schizospina* KARAWAJEW***Polyrhachis* (Johnia) *schizospina* KARAWAJEW, 1927: 44*Polyrhachis* (Aulacomyrma) *schizospina* KARAWAJEW, HUNG, 1967a: 402 [synonymy of the subgenus]**Subgenus *Campomyrma* WHEELER [fig. 2]***Camponotus* MAYR, 1861: 35 partim [sensu FOREL, 1879: 110]*Polyrhachis* (*Campomyrma*) WHEELER, 1911a: 860. Type-species: *Formica exercita* WALKER, 1859: 370 (*Polyrhachis clypeata* MAYR, 1862: 683 auct.).*Polyrhachis* (*Evelyna*) partim [sensu CHAPMAN & CAPCO, 1951: 267][*Polyrhachis clypeatus*-group sensu HUNG, 1967b: 200]

WHEELER (1911) established the subgenus for EMERY'S (1896) "cohors *Polyrhachides camponotiformes*" without further descriptions. EMERY (1896), who had also included today's subgenus *Myrmothrinax* in his "cohors", only gave a description for the

worker caste: "head weakly convex; eyes lateral; thorax dorsally marginate; pronotum angled to weakly dentate; propodeum with 2 spine-like flat and horizontally orientated appendages or with small upcurved teeth; gaster similar to that in *Camponotus*, first gastral segment occupying less than half of the gaster's length" (own translation). FOREL (1915) excluded EMERY'S (1896) "*manipulus thrinax*" as subgenus *Myrmothrinax* ("three spines on the petiole") and restricted *Campomyrma* to "*manipulus clypeata*" and "*manipulus femorata*" without giving further details. In 1925 EMERY added: "teeth or appendages of propodeum always more developed than those of pronotum; no teeth, etc., at the mesonotum; petiole with two pairs of upright spines or teeth, in some species the central pair of spines is lacking and the shape of the top of the scale is like a transverse arc; in some species the median pair of teeth is smaller than the outer ones" (own translation).

In these species the thorax is always marginate, the genae are immarginate. They are weaver ants, which have a center of speciation in Australia, where they are ground nesting, while the Indomalayan species - as far as known - are arboreal.

The subgenus comprises 35 species. EMERY (1925) divided it into the *Polyrhachis clypeata-femorata clypeata*-group and the *Polyrhachis-halidayi*-group. Into the latter he only included *P. halidayi* and *P. hawxwelli*. ANDERSEN & BURBIDGE (1991: 80) list a *Polyrhachis inconspicua*-group without giving further details.

Distribution: Australia, Bismarck-Archipelago, Burma, China (new), India, Indochina, Indonesia, Laos, Malaysia, New Guinea, Oceania, Singapore, Sri Lanka, Thailand (new)

List of species:

Polyrhachis creusa creusa* EMERYPolyrhachis creusa* EMERY, 1897a: 577*Polyrhachis creusa* var. *chlorizans* FOREL,

1901b: 30 [synonymy by KOHOUT & TAYLOR, 1990: 514]

Polyrhachis hecuba FOREL, 1902b: 527 [synonymy by KOHOUT & TAYLOR, 1990: 514]*Polyrhachis creusa* EMERY; CHAPMAN & CAPCO, 1951: 257 [misspelling]

***Polyrhachis creusa distinguenda*
KARAWAJEW**

Polyrhachis creusa distinguenda KARAWAJEW,
1927: 7

***Polyrhachis equina* SMITH**

Polyrhachis equinus SMITH, 1857: 63
Polyrhachis biloba FOREL, 1911d: 58 [synonymy
by WHEELER, 1919: 122]
Polyrhachis equia SMITH; CHAPMAN & CAPCO,
1951: 257 [misspelling]

***Polyrhachis excisa* MAYR**

Polyrhachis excisa MAYR, 1867: 64

***Polyrhachis exercita exercita* (WALKER)**

Formica exercita WALKER, 1859: 370
Polyrhachis clypeatus MAYR, 1862: 683 [synonymy
by DONISTHORPE, 1932a: 575]
Polyrhachis clipeata MAYR; ROGER, 1863: 7
[misspelling]
Polyrhachis exercita (WALKER); SMITH, 1867:
318
Polyrhachis indica MAYR, 1870: 945 [synonymy
by FOREL, 1893a: 29 with *P. clypeata* MAYR]
Camponotus indicus (MAYR); FOREL, 1879: 110

***Polyrhachis exercita lucidiventris* FOREL**

Polyrhachis clypeata var. *lucidiventris* FOREL,
1907c: 39
Polyrhachis exercita lucidiventris FOREL; DONIS-
THORPE, 1932a: 575 [indirect transfer of the
subspecies by synonymy of *Polyrhachis clype-
atus* MAYR, 1862: 683]

***Polyrhachis exercita obtusisquama* FOREL**

Polyrhachis clypeata r. *obtusisquama* FOREL,
1902a: 289
Polyrhachis exercita obtusisquama FOREL; DO-
NISTHORPE, 1932a: 575 [indirect transfer of the
subspecies by synonymy of *Polyrhachis clype-
atus* MAYR, 1862: 683]

***Polyrhachis exercita rastrata* EMERY**

Polyrhachis rastrata EMERY, 1889: 517
Polyrhachis clypeata r. *rastrata* EMERY; FOREL,
1893a: 19 + 29
Polyrhachis exercita rastrata EMERY; DONIS-
THORPE, 1932a: 575 [indirect transfer of the

subspecies by synonymy of *Polyrhachis clype-
atus* MAYR, 1862: 683]

Polyrhachis clypeata rastata EMERY; CHAPMAN
& CAPCO, 1951: 257 [misspelling]
Polyrhachis rastata EMERY; CHAPMAN & CAPCO,
1951: 257 [misspelling]

***Polyrhachis femorata* SMITH**

Polyrhachis femoratus SMITH, 1858: 73
Camponotus emeryi FOREL, 1880: 113 [syno-
nymy by EMERY in FOREL, 1894b: 72]

***Polyrhachis flavibasis* CLARK**

Polyrhachis flavibasis CLARK, 1930: 16

***Polyrhachis fuscipes* MAYR**

Polyrhachis fuscipes MAYR, 1862: 679
[synonymy by MAYR, 1863a: 445 with *P. hex-
acanthus* (ERICHSON)]
Polyrhachis hexacantha (ERICHSON, 1841: 74)
partim [sensu MAYR, 1863a: 445; sensu DAL-
LA TORRE, 1893: 263; sensu EMERY, 1925:
179]
Polyrhachis semipolita hestia FOREL, 1911b: 295
[synonymy by TAYLOR, 1989: 23]
Polyrhachis fuscipes MAYR; TAYLOR, 1989: 23

***Polyrhachis gravis* CLARK**

Polyrhachis gravis CLARK, 1930: 15

***Polyrhachis gribodoi* EMERY**

Polyrhachis gribodoi EMERY, 1887a: 221

***Polyrhachis halidayi* EMERY**

Polyrhachis halidayi EMERY, 1889: 517

***Polyrhachis hauxwelli* BINGHAM
[subgen. comb. rev.]**

Polyrhachis hauxwelli BINGHAM, 1903: 394
Polyrhachis (Camponyrma) hauxwelli BINGHAM;
EMERY, 1925: 180
Polyrhachis (Myrma) hauxwelli BINGHAM; CHAP-
MAN & CAPCO, 1951: 271

***Polyrhachis hexacantha* (ERICHSON)**

Formica hexacantha ERICHSON, 1842: 260
Polyrhachis hexacanthus (ERICHSON); MAYR,
1863a: 445

Polyrhachis froggatti FOREL, 1910c: 89 [synonymy by TAYLOR, 1989: 24]

***Polyrhachis hirsuta* MAYR**

Polyrhachis hirsuta MAYR, 1876: 75

Polyrhachis hirsuta quinquedentata VIEHMEYER, 1925: 147 [synonymy by TAYLOR, 1989: 24]

***Polyrhachis horacei* HUNG**

Polyrhachis (*Evelyna*) *cheesmanae*

DONISTHORPE, 1943c: 459 [junior homonym of *P. (Myrmothrinax) cheesmanae* DONISTHORPE, 1937a: 273]

Polyrhachis horacei HUNG, 1967b: 201 [replacement name for *P. cheesmanae* DONISTHORPE, 1943 nec 1937]

***Polyrhachis inconspicua* EMERY**

Polyrhachis inconspicua EMERY, 1887a: 225

Polyrhachis thalia FOREL, 1902b: 530 [synonymy by TAYLOR, 1989: 24]

***Polyrhachis insularis* EMERY**

Polyrhachis inconspicua var. *insularis* EMERY, 1887a: 225

Polyrhachis inconspicua var. *subnitens* EMERY, 1895b: 357 [synonymy by TAYLOR, 1989: 25]

Polyrhachis insularis EMERY; TAYLOR, 1989: 25

***Polyrhachis io* FOREL**

Polyrhachis thalia var. *io* FOREL, 1915a: 114

Polyrhachis io FOREL; TAYLOR, 1989: 25

***Polyrhachis jacksoniana* ROGER**

Polyrhachis jacksoniana ROGER, 1863: 158

Polyrhachis hexacantha jacksoniana ROGER; EMERY, 1925: 179

Polyrhachis jacksoniana ROGER; TAYLOR & BROWN, 1985: 137 [stat. rev.]; TAYLOR, 1989: 25 [species inquirenda]

***Polyrhachis leae leae* FOREL**

Polyrhachis leae FOREL, 1913c: 193

Polyrhachis leae FOREL; TAYLOR, 1989: 27 [species inquirenda, associated with the *Polyrhachis* (*sidnica*) aggregat]

***Polyrhachis leae cedarensis* FOREL**

Polyrhachis leae r. *cedarensis* FOREL, 1915a: 114

Polyrhachis leae cedarensis FOREL; TAYLOR, 1989: 27 [species inquirenda, associated with the *Polyrhachis* (*sidnica*) aggregat]

***Polyrhachis macropus* WHEELER**

Hoplomyrmus micans MAYR, 1876: 76 partim [sensu KIRBY, 1896: 205, misidentification]

Polyrhachis longipes WHEELER, 1915a: 821 [junior homonym of *P. longipes* SMITH, 1859: 140]

Polyrhachis macropus WHEELER, 1916: 37 [replacement name for *P. longipes* WHEELER]

***Polyrhachis maculata* FOREL**

Polyrhachis polymnia var. *maculata* FOREL, 1915a: 115

Polyrhachis maculata FOREL; TAYLOR, 1989: 25

***Polyrhachis micans* MAYR**

Polyrhachis micans MAYR, 1876: 76

***Polyrhachis ops* FOREL**

Polyrhachis micans ops FOREL, 1907a: 308

Polyrhachis micans st. *ops* var. *dentinasis* SANTSCHI, 1920c: 185 [name not available]

Polyrhachis micans r. *ops* var. *rufa* CRAWLEY, 1921: 97 [name not available]

Polyrhachis ops FOREL; TAYLOR, 1989: 26

***Polyrhachis patiens* SANTSCHI**

Polyrhachis patiens SANTSCHI, 1920c: 185

***Polyrhachis phryne* FOREL**

Polyrhachis phryne FOREL, 1907c: 41

Polyrhachis sempronina FOREL, 1907c: 39 [synonymy by TAYLOR, 1989: 26]

Polyrhachis sidnica var. *perthensis* CRAWLEY, 1922: 36

Polyrhachis perthensis CRAWLEY; TAYLOR, 1989: 26 [synonymy by KOHOUT & TAYLOR, 1990: 517]

***Polyrhachis polymnia* FOREL**

Polyrhachis polymnia FOREL, 1902b: 532

***Polyrhachis prometheus* SANTSCHI**

Polyrhachis prometheus SANTSCHI, 1920b: 566

Polyrhachis pseudothrinax* HUNGPolyrhachis pseudothrinax* HUNG, 1967b: 199***Polyrhachis pyrrhus* FOREL***Polyrhachis pyrrhus* FOREL, 1910c: 90***Polyrhachis schwiedlandi* FOREL***Polyrhachis schwiedlandi* FOREL, 1902b: 529
Polyrhachis schwiedlandi FOREL; TAYLOR, 1989: 23 [misspelling]***Polyrhachis sculpta* EMERY***Polyrhachis sculpta* EMERY, 1887a: 226***Polyrhachis semipolita* ANDRÉ***Polyrhachis semipolita* ANDRÉ, 1896: 251
Polyrhachis hexacantha semipolita ANDRÉ; EMERY, 1898a: 228
Polyrhachis hexacantha semipolita ANDRÉ; CLARK, 1934: 72 [misspelling]
Polyrhachis semipolita ANDRÉ; CLARK, 1934: 72***Polyrhachis sidnica sidnica* MAYR***Polyrhachis sidnica* MAYR, 1866a: 886
Polyrhachis quadricuspis MAYR, 1870: 946 [synonymy by MAYR, 1876: 75]
Polyrhachis sydnica MAYR; MAYR, 1870: 946 [misspelling]
Polyrhachis sydneyensis MAYR; WHEELER, 1915a: 822 [nomen nudum, probably misspelling for *P. sidnica* MAYR]
Polyrhachis sidnica var. *quadricuspis* MAYR; EMERY, 1925: 180
Polyrhachis sidnica MAYR; TAYLOR, 1989: 27 [species inquirenda, associated with the *Polyrhachis* (*sidnica*) aggregat]***Polyrhachis sidnica tambourinensis* FOREL***Polyrhachis sidnica* var. *tambourinensis* FOREL, 1915a: 113
Polyrhachis sidnica tambourinensis FOREL; TAYLOR, 1989: 27 [species inquirenda, associated with the *Polyrhachis* (*sidnica*) aggregat]***Polyrhachis* (*sidnica*)**[aggregatname by TAYLOR, 1989: 27 for]:
Polyrhachis sidnica sidnica MAYR, 1866a: 886
Polyrhachis leae leae FOREL, 1913c: 193*Polyrhachis sidnica tambourinensis* FOREL, 1915a: 113*Polyrhachis leae cedarensis* FOREL, 1915a: 114***Polyrhachis spengeli* FOREL***Polyrhachis spengeli* FOREL, 1912a: 69***Polyrhachis templi* FOREL***Polyrhachis templi* FOREL, 1902b: 531***Polyrhachis zimmerae* CLARK***Polyrhachis zimmerae* CLARK, 1941b: 92
Polyrhachis zimneri CLARK; TAYLOR, 1989: 23 [misspelling]**Subgenus *Chariomyrma* FOREL**
[fig. 3]*Polyrhachis* (*Chariomyrma*) FOREL, 1915a: 107.
Type-species: *Polyrhachis guerini* ROGER, 1863: 157, by original designation.
Polyrhachis (*Hagiomyrma*) partim [sensu WHEELER, 1911a: 860]

WHEELER before (1911) had introduced the subgenus *Hagiomyrma* for EMERY'S (1886) "cohors *Polyrhachides arciferæ*". FOREL (1915) created the subgenus *Hagiomyrma* for EMERY'S (1886) "manipulus *P. guerini*" of this "cohors". Neither EMERY (1886) nor FOREL (1915) gave a description of the "manipulus" subgenus resp. EMERY (1925) described it for the first time: "thorax margination sometimes weak and small, sometimes large and elevated; border of the thoracic dorsum sometimes lobed, the segments are separated by borders (as e. g. in the genus *Cryptoceurus*), each side of the propodeum bears a basal lobe (ex. *P. laciniata* EMERY); pronotal shoulders generally with a tooth or spine; propodeal spines always longer than the pronotal shoulders; petiole with different types of spination, generally it is short and broad, rarely it is like in *Hedomyrma*; usually the spines are long, strong and curved, embracing the base of the gaster; rarely there is one single dorsal tooth (*P. heimlethii* FOREL)" (own translation).

The thorax of these species is marginate, the genae are immarginate. They are small ground nesting, non weaving species which prefer open habitats. Centers of speciation lie in Australia (*arcuata*-gp.) and New Guinea (*hostilis*-gp.).

The subgenus comprises 58 species. EMERY (1925) distinguished the *Polyrhachis arcuata*-group (small species with weak margination of the thorax) and the *Polyrhachis hostilis*-group (large species with strongly elevated and acute margination of the thorax).

Distribution: Australia, Bismarck-Archipelago, India, Indonesia, Malaysia, New Caledonia, New Guinea, New Hebrides, Oceania, Philippines, Singapore, Solomons

List of species:

Polyrhachis antennata antennata VIEHMEYER

Polyrhachis antennata VIEHMEYER, 1912: 13

Polyrhachis antennata reticulata [nom. nov.]

Polyrhachis antennata var. *aciculata* VIEHMEYER, 1912: 13 [primary homonym of *P. aciculatus* SMITH, 1858: 70]

[Derivatio nominis: gaster reticulate on top, while longitudinally striate in the nominal subspecies]

Polyrhachis appendiculata EMERY

Polyrhachis appendiculata EMERY, 1893a: 227

Polyrhachis arcuata arcuata (LE GUILLOU)

Formica arcuata LE GUILLOU, 1842: 315 [synonymy by DALLA TORRE, 1893: 264 with *P. latreillii* (GUÉRIN-MÉNEVILLE)]

Polyrhachis arcuatus (LE GUILLOU); MAYR, 1863a: 443

Polyrhachis latifrons ROGER, 1863: 155 [synonymy by EMERY, 1897: 583 with *P. arcuata* (LE GUILLOU)]

Polyrhachis modiglianii EMERY, 1887b: 529 [synonymy by EMERY, 1895b: 357 with *P. latifrons* ROGER; synonymy by EMERY, 1898a: 230 with *P. arcuata* (LE GUILLOU)]

Polyrhachis latreillei (GUÉRIN-MÉNEVILLE, 1838: 205) partim [sensu DALLA TORRE, 1893: 264]

Polyrhachis arcuata (LE GUILLOU); EMERY, 1900b: 714; FOREL, 1901b: 32

Polyrhachis arcuata acutinota FOREL

Polyrhachis arcuata var. *acutinota* FOREL, 1901b: 22

Polyrhachis arcuata aruana KARAWAJEW

Polyrhachis arcuata var. *aruana* KARAWAJEW, 1927: 16

Polyrhachis arcuata continentis FOREL

Polyrhachis arcuata var. *continentis* FOREL, 1905a: 179

Polyrhachis arcuata denselineata VIEHMEYER

Polyrhachis arcuata var. *denselineata* VIEHMEYER, 1914b: 533

Polyrhachis argenteosignata EMERY

Polyrhachis argenteo signata EMERY, 1900a: 335 [incorrect original spelling]

Polyrhachis argenteo-signata EMERY; CHAPMAN & CAPCO, 1951: 259; FOREL, 1901b: 33 [misspelling]

Polyrhachis aurea aurea MAYR

Polyrhachis guerini var. *aurea* MAYR, 1876: 74
Polyrhachis aurea MAYR; EMERY, 1897a: 589

Polyrhachis aurea fiorii EMERY

Polyrhachis aurea fiorii EMERY, 1914: 429

Polyrhachis auriformis DONISTHORPE

Polyrhachis auriformis DONISTHORPE, 1943c: 462

Polyrhachis aurita aurita EMERY

Polyrhachis aurita EMERY, 1911: 538

Polyrhachis aurita longispina VIEHMEYER

Polyrhachis schlaginhaufeni var. *longispina* VIEHMEYER, 1912: 12

Polyrhachis aurita var. *longispinosa* VIEHMEYER; EMERY, 1925: 187 [misspelling]

Polyrhachis aurita schlaginhaufeni VIEHMEYER

Polyrhachis schlaginhaufeni VIEHMEYER, 1912: 12

Polyrhachis aurita schlaginhaufeni VIEHMEYER; EMERY, 1925: 187

Polyrhachis aurita schlagin-haufeni VIEHMEYER;
CHAPMAN & CAPCO, 1951: 260 [misspelling]

***Polyrhachis beauforti beauforti* EMERY**

Polyrhachis beauforti EMERY, 1911: 538

***Polyrhachis beauforti punctinota*
VIEHMEYER**

Polyrhachis beauforti var. *punctinota* VIEHMEYER, 1914c: 58

Polyrhachis subcyanea var. *punctinota* VIEHMEYER; CHAPMAN & CAPCO, 1951: 260 [CHAPMAN & CAPCO erroneously reported the original description in this way]

***Polyrhachis bedoti* FOREL**

Polyrhachis bedoti FOREL, 1902b: 518

***Polyrhachis caulomma caulomma*
VIEHMEYER**

Polyrhachis caulomma VIEHMEYER, 1914c: 57

***Polyrhachis caulomma parallela*
VIEHMEYER**

Polyrhachis caulomma var. *parallela* VIEHMEYER, 1914a: 612

***Polyrhachis cingula* DONISTHORPE**

Polyrhachis cingula DONISTHORPE, 1947a: 590

***Polyrhachis coerulescens coerulescens*
EMERY**

Polyrhachis coerulescens EMERY, 1897a: 588

***Polyrhachis coerulescens nigronitens*
VIEHMEYER**

Polyrhachis coerulescens var. *nigronitens* VIEHMEYER, 1914c: 58

***Polyrhachis coerulescens strigifrons*
VIEHMEYER**

Polyrhachis coerulescens var. *strigifrons* VIEHMEYER, 1914b: 535

***Polyrhachis constricta* EMERY**

Polyrhachis constricta EMERY, 1897a: 584

***Polyrhachis contemta* MAYR**

Polyrhachis contemta MAYR, 1876: 74

***Polyrhachis costulata costulata* EMERY
[stat. rev.]**

Polyrhachis aurea costulata EMERY, 1897a: 590

Polyrhachis costulata EMERY; DAHL, 1901: table between page 22 and page 23

Polyrhachis aurea costulata EMERY; CHAPMAN & CAPCO, 1951: 259

***Polyrhachis costulata radiculicola* DAHL**

Polyrhachis aurea r. *costulata* var. *radiculicola*

FOREL, 1901b: 32 [name not available]

Polyrhachis costulata var. *radiculicola* DAHL, 1901: 15 [first available use of the name]

***Polyrhachis cyrus* FOREL**

Polyrhachis cyrus FOREL, 1901b: 32

***Polyrhachis escherichi* VIEHMEYER**

Polyrhachis escherichi VIEHMEYER, 1914b: 534

***Polyrhachis eurynota* EMERY**

Polyrhachis eurynota EMERY, 1897a: 587

***Polyrhachis fulgens* VIEHMEYER**

Polyrhachis fulgens VIEHMEYER, 1912: 11

***Polyrhachis gab* FOREL**

Polyrhachis guerini r. *gab* FOREL, 1879: 116

Polyrhachis gab FOREL; DALLA TORRE, 1893: 262

***Polyrhachis guerini* ROGER**

Formica ammon FABRICIUS, 1775: 394 partim [sensu LATREILLE, 1802: 132, see DALLA TORRE, 1893: 262]

Polyrhachis guerini ROGER, 1863: 157

Polyrhachis latreillei (GUÉRIN-MÉNEVILLE, 1838: 205) partim [sensu MAYR, 1863a: 445; misspelling of *P. latreillii*]

Polyrhachis exul EMERY, 1883: 147 [synonym by EMERY, 1897a: 584 (in key)]

Polyrhachis guerini ROGER; DALLA TORRE, 1893: 262 [incorrect subsequent spelling]

***Polyrhachis heinlethii heinlethii* FOREL**

- Polyrhachis heinlethii* FOREL, 1895b: 47
Polyrhachis heinlethii var. *sophiae* FOREL, 1902b: 521 [incorrect original spelling; synonymy by KOHOUT & TAYLOR, 1990: 514]
Polyrhachis heinlethii FOREL, EMERY, 1925: 186 [misspelling]

***Polyrhachis heinlethii papuana* EMERY**

- Polyrhachis heinlethii* var. *papuana* EMERY, 1900a: 336 [incorrect original spelling]

***Polyrhachis hookeri* LOWNE**

- Polyrhachis hookeri* LOWNE, 1865: 334
Polyrhachis hookeri var. *aerea* FOREL, 1902b: 521 [synonymy by KOHOUT & TAYLOR, 1990: 515]
Polyrhachis cataulacoidea STITZ, 1911: 377 [synonymy by KOHOUT, 1994a: 136]
Polyrhachis cataulacoides STITZ, EMERY, 1925: 186 [misspelling]

***Polyrhachis hostilis hostilis* SMITH**

- Polyrhachis hostilis* SMITH, 1859: 139
Polyrhachis hirsuta EMERY, 1911: 532; EMERY, 1925: 188 [nomen nudum]
Polyrhachis hostilis var. *hirsuta* VIEHMEYER, 1914c: 58 [junior primary homonym of *P. hirsuta* MAYR, 1876: 75]
Polyrhachis hostilis var. *hirsutula* EMERY, SANT-SCHI, 1916: 243 [wrong procedure while correcting a preoccupied name and also junior primary homonym of *P. continua* var. *hirsutula* EMERY, 1911: 256]
Polyrhachis hostilis var. *intricata* FOREL, 1918: 727 [replacement name for *P. hostilis* var. *hirsutula* SANT-SCHI; synonymy by BOLTON, 1974: 175]
Polyrhachis hostilis hebes DONISTHORPE, 1941b: 62 [synonymy by BOLTON, 1974: 175]
Polyrhachis hirsutula EMERY, WILSON, 1959: 444 and 1971: 438 [WILSON overlooked the replacement name *P. hostilis* var. *intricata* FOREL]; HÖLLDOBLER & WILSON, 1990: 164 [they overlooked the synonymy with *P. hostilis* SMITH]

***Polyrhachis hostilis circumflexa* SANT-SCHI**

- Polyrhachis hostilis* var. *arcuata* STITZ, 1911: 378 [junior secondary homonym of *P. arcuata* (LE GUILLOU, 1842: 315)]

- Polyrhachis hostilis* var. *circumflexa* SANT-SCHI, 1916: 23 [replacement name for *P. hostilis* var. *arcuata* STITZ]

***Polyrhachis inclusa* VIEHMEYER**

- Polyrhachis inclusa* VIEHMEYER, 1912: 13 [fossil]

***Polyrhachis kaipi* MANN**

- Polyrhachis kaipi* MANN, 1919: 382

***Polyrhachis karawaiewi* SANT-SCHI**

- Polyrhachis* (*Chariomyrma*) *convexa* KARAWAJEW, 1927: 17 [junior primary homonym of *P. convexa* ROGER, 1863: 153]
Polyrhachis karawaiewi SANT-SCHI, 1928a: 139 [replacement name for *P. convexa* KARAWAJEW]
Polyrhachis karawajewi SANT-SCHI, CHAPMAN & CAPCO, 1951: 261 [incorrect subsequent spelling]

***Polyrhachis laciniata* EMERY**

- Polyrhachis laciniata* EMERY, 1900a: 335

***Polyrhachis lata* EMERY**

- Polyrhachis latreillei* GUÉRIN-MÉNEVILLE, 1838: 205 partim [sensu EMERY, 1887a: 229]
Polyrhachis guerini lata EMERY, 1895b: 357 [name for *P. latreillei* GUÉRIN-MÉNEVILLE sensu EMERY, 1887a: 229]
Polyrhachis aurea lata EMERY, EMERY, 1897a: 590
Polyrhachis gab var. *aegra* FOREL, 1915a: 109 [synonymy by KOHOUT & TAYLOR, 1990: 515]
Polyrhachis aurea r. *lata* MAYR, FOREL, 1915a: 110 [citation of wrong author]
Polyrhachis aegra FOREL, KOHOUT, 1988a: 50 [synonymy by KOHOUT & TAYLOR, 1990: 515]
Polyrhachis lata EMERY, KOHOUT & TAYLOR, 1990: 515

***Polyrhachis latinota* VIEHMEYER**

- Polyrhachis hostilis* var. *latinota* VIEHMEYER, 1912: 11
Polyrhachis latinota VIEHMEYER, VIEHMEYER, 1914c: 26

***Polyrhachis latreillei* (GUÉRIN-MÉNEVILLE)**

- Formica latreillei* GUÉRIN-MÉNEVILLE, 1838: 205

Polyrhachis latreillii (GUÉRIN-MÉNEVILLE);
SMITH, 1858: 73
Polyrhachis latreillei GUÉRIN-MÉNEVILLE;
MAYR, 1863a: 445; DALLA TORRE, 1893: 264
[misspelling]

***Polyrhachis leopoldi* SANTSCHI**

Polyrhachis leopoldi SANTSCHI, 1932: 25

***Polyrhachis limbata* EMERY**

Polyrhachis hostilis SMITH, 1859: 139 partim
[sensu EMERY, 1887a: 229]
Polyrhachis limbata EMERY, 1897a: 585
Polyrhachis mentor FOREL, 1901b: 31 [synonymy
by VIEHMEYER, 1914: 54]

***Polyrhachis lorlai* EMERY**

Polyrhachis lorlai EMERY, 1897a: 585

***Polyrhachis lownei* FOREL**

Polyrhachis hookeri r. *lownei* FOREL, 1895b: 44
Polyrhachis lownei FOREL; KOHOUT & TAYLOR,
1990: 515

***Polyrhachis marginata* SMITH**

Polyrhachis marginatus SMITH, 1859: 139

***Polyrhachis nigrescens* KARAWAJEW**

Polyrhachis nigrescens KARAWAJEW, 1927: 16

***Polyrhachis nitens* DONISTHORPE**

Polyrhachis nitens DONISTHORPE, 1943c: 464

***Polyrhachis obscura* FOREL**

Polyrhachis hookeri r. *obscura* FOREL, 1895b: 44
Polyrhachis hookeri r. *obscura* var. *bellenden-
ensis* FOREL, 1915a: 109 [name not available]
Polyrhachis obscura FOREL; KOHOUT & TAYLOR,
1990: 516

***Polyrhachis obtusa* EMERY**

Polyrhachis aurea var. *obtusa* EMERY, 1897a:
589
Polyrhachis aurea var. *obtus* EMERY; DONIS-
THORPE, 1947a: 590 [incorrect gender-suffix]
Polyrhachis obtusa EMERY; KOHOUT & TAYLOR,
1990: 516

***Polyrhachis opalescens* CLARK**

Polyrhachis opalescens CLARK, 1930: 11

***Polyrhachis pallescens* MAYR**

Polyrhachis guerini var. *pallescens* MAYR, 1876:
74
Polyrhachis aurea var. *pallescens* MAYR; EME-
RY, 1897a: 584
Polyrhachis aurea var. *depilis* EMERY, 1897a:
589 [synonymy by KOHOUT & TAYLOR, 1990:
516]
Polyrhachis pallescens MAYR; KOHOUT &
TAYLOR, 1990: 516

***Polyrhachis punctiventris* MAYR**

Polyrhachis punctiventris MAYR, 1876: 73

***Polyrhachis rere* MANN**

Polyrhachis rere MANN, 1919: 381

***Polyrhachis rotumana* WILSON & TAYLOR**

Polyrhachis rotumana WILSON & TAYLOR,
1967a: 99

***Polyrhachis rotundiceps* KARAWAJEW**

Polyrhachis rotundiceps KARAWAJEW, 1927: 18

***Polyrhachis rowlandi* FOREL**

Polyrhachis rowlandi FOREL, 1910c: 85

***Polyrhachis scapulata* SANTSCHI**

Polyrhachis scapulata SANTSCHI, 1932: 23

***Polyrhachis schoopae* FOREL**

Polyrhachis appendiculata r. *schoopae* FOREL,
1902b: 520
Polyrhachis schoopae FOREL; KOHOUT & TAY-
LOR, 1990: 519

***Polyrhachis scutulata* SMITH**

Polyrhachis scutulatus SMITH, 1859: 140

***Polyrhachis senilis* FOREL**

Polyrhachis gab var. *senilis* FOREL, 1902b: 520
Polyrhachis gab var. *tripellis* FOREL, 1915a: 108
[synonymy by KOHOUT, 1988a: 50]

Polyrhachis comata CRAWLEY, 1915: 237 [junior primary homonym of *P. bicolor comata* EMERY, 1911: 538]

Polyrhachis crawleyella SANTSCHI, 1916: 243 [replacement name for *P. comata* CRAWLEY; synonymy by BOLTON, 1975: 173 with *P. gab* FOREL, 1879: 116; synonymy by KOHOUT, 1988a: 50]

Polyrhachis crawleyana SANTSCHI; EMERY, 1925: 186 [misspelling]

Polyrhachis gab FOREL, 1879: 116 partim [sensu BOLTON, 1974: 173; sensu TAYLOR, 1987: 60]

Polyrhachis senilis FOREL; KOHOUT, 1988a: 50

Polyrhachis splendens SANTSCHI

Polyrhachis splendens SANTSCHI, 1932: 22

Polyrhachis subaenescens VIEHMEYER

Polyrhachis subaenescens VIEHMEYER, 1912: 10

Polyrhachis subcyanea subcyanea EMERY

Polyrhachis subcyanea EMERY, 1897a: 586

Polyrhachis subcyanea rotundinota VIEHMEYER

Polyrhachis subcyanea var. *rotundinota* VIEHMEYER, 1914c: 58

Polyrhachis subcyaneae var. *rotundinota* VIEHMEYER; CHAPMAN & CAPCO, 1951: 263 [misspelling]

Polyrhachis trophimus SMITH [subgen. comb. rev.]

Polyrhachis trophimus SMITH, 1863: 14

Polyrhachis (*Hagiomyrma*) *trophimus* SMITH; DALLA TORRE, 1893: 271

Polyrhachis (*Chartomyrma*) *trophimus* SMITH; DONISTHORPE, 1932b: 469

Polyrhachis (*Hagiomyrma*) *trophimus* SMITH; CHAPMAN & CAPCO, 1951: 267

Polyrhachis urania FOREL

Polyrhachis urania FOREL, 1902b: 516

Polyrhachis vermiculosa MAYR

Polyrhachis guerini var. *vermiculosa* MAYR, 1876: 74

Polyrhachis aurea var. *vermiculosa* MAYR; EMERY, 1897a: 584

Polyrhachis vermiculosa MAYR; KOHOUT & TAYLOR, 1990: 520

Polyrhachis verticalis SANTSCHI

Polyrhachis abrupta KARAWAJEW, 1927: 19 [junior primary homonym of *P. abrupta* MAYR, 1867: 62]

Polyrhachis verticalis SANTSCHI, 1928a: 139 [replacement name for *P. abrupta* KARAWAJEW]

Polyrhachis villosa villosa EMERY

Polyrhachis hostilis var. *villosa* EMERY, 1897a: 584

Polyrhachis villosa EMERY; VIEHMEYER, 1914: 59

Polyrhachis villosa pubiventris VIEHMEYER

Polyrhachis villosa var. *pubiventris* VIEHMEYER, 1914: 59

Subgenus *Cyrtomyrma* FOREL [fig. 4]

Polyrhachis (*Cyrtomyrma*) FOREL, 1915a: 106.

Type-species: *Formica rastellata* LATREILLE, 1802: 130, by original designation.

Polyrhachis (*Myrma*) partim [sensu WHEELER, 1911a: 860]

WHEELER (1911) had included EMERY'S (1896) whole "cohors *Polyrhachides carinatae*" into the subgenus *Myrma*. FOREL (1915) introduced his new subgenus only with the words: "For the 'turma *rastellata*' (probably including *revoili* ANDRÉ) I suggest the name *Cyrtomyrma* nov. subgen. with the type species *P. rastellata*, which has to be separated from the rest of the turma *relucens* (*Polyrhachides carinatae* EM.)". The first description of the group was given by EMERY (1925): "head rounded, proximally narrowed, larger than the pronotum; thorax proximally broad, narrowing distally; back more or less rounded; shoulders of pronotum rounded or ending in an acute tooth; propodeum very short, rounded, i. e. declining smoothly; propodeal teeth very small or totally absent; petiole scale-like with 4 teeth or short spines; first gastral segment large; black and very shiny; because of their large rounded head they resemble somewhat the European *Lasius fuliginosus*. Female resembling the worker, but thorax and petiole totally unarmed" (own translation).

The thorax of these species is immarginate whereas the genae are marginate. They are small weaver ants which nest above the ground. No distinct centers of speciation can be detected at the moment in this widely distributed subgenus.

The subgenus comprises 28 species. The last revision was published by DONISTHORPE (1938). KYAW THAN (1978) wrote a doctoral thesis on that subgenus and labeled many museum specimen with new names, but did not publish the study. Therefore all these names are unavailable and are not included in the following list.

Distribution: Australia, Bismarck-Archipelago, Burma, China, India, Indochina, Indonesia, Laos, Malaysia, New Guinea, Oceania, Philippines, Solomons, Singapore, Sri Lanka, Thailand

List of species:

Polyrhachis albertisi EMERY

Polyrhachis albertisi EMERY, 1887a: 240
Polyrhachis albertisii EMERY; DALLA TORRE, 1893: 258 [incorrect subsequent spelling]

Polyrhachis australis MAYR

Polyrhachis levior ROGER, 1863: 8 partim [sensu DALLA TORRE, 1893: 264; TAYLOR & BROWN, 1985: 137; TAYLOR, 1987: 61]
Polyrhachis australis MAYR, 1870: 945
Polyrhachis laevior ROGER partim [sensu MAYR, 1876: 71, misspelling]
Polyrhachis rastellata laevior ROGER partim [sensu EMERY, 1925: 208, misspelling]
Polyrhachis nox DONISTHORPE, 1938b: 249 [synonymy by KOHOUT & TAYLOR, 1990: 513]
Polyrhachis australis MAYR; KOHOUT & TAYLOR, 1990: 513

Polyrhachis burmanensis DONISTHORPE

Polyrhachis burmanensis DONISTHORPE, 1938b: 257

Polyrhachis coronata SANTSCHE

Polyrhachis obsidiana KARAWAJEW, 1927: 59 [junior primary homonym of *P. gagates obsidiana* EMERY, 1921a: 21]
Polyrhachis coronata SANTSCHE, 1928a: 140 [replacement name for *P. obsidiana* KARAWAJEW]

Polyrhachis debilis debilis EMERY

Polyrhachis laevior var. *debilis* EMERY, 1887a: 240
Polyrhachis rastellata r. *laevior* var. *debilis* EMERY; FOREL, 1893: 21; 1902b: 527 [name not available]
Polyrhachis levior var. *debilis* EMERY; DALLA TORRE, 1893: 264 [misspelling]
Polyrhachis rastellata st. *laevior* var. *debilis* EMERY; EMERY, 1925: 208 [wrong citation of FOREL, 1893: 21; name not available]
Polyrhachis rastellata st. *laevior* var. *debilis* EMERY; SANTSCHE, 1932: 19 [name not available]
Polyrhachis debilis EMERY; DONISTHORPE, 1938b: 265
Polyrhachis rastellata r. *laevior* var. *debilis* EMERY; CHAPMAN & CAPCO, 1951: 266 [name not available]

Polyrhachis debilis johnsoni MANN

Polyrhachis rastellata var. *johnsoni* MANN, 1919: 390
Polyrhachis debilis var. *johnsoni* MANN; DONISTHORPE, 1938b: 266

Polyrhachis demangei SANTSCHE

Polyrhachis rastellata demangei SANTSCHE, 1910b: 284
Polyrhachis demangei SANTSCHE; DONISTHORPE, 1938b: 264

Polyrhachis dentata DONISTHORPE

Polyrhachis dentata DONISTHORPE, 1947b: 196

Polyrhachis doddi DONISTHORPE

Polyrhachis doddi DONISTHORPE, 1938b: 263

Polyrhachis emeryana MANN

Polyrhachis emeryana MANN, 1919: 390

Polyrhachis euryala euryala SMITH [stat. rev.]

Polyrhachis euryalus SMITH, 1863: 16 [synonymy by MAYR, 1862: 688 with *P. rastellata* (LA-TREILLE, 1802: 130)]
Polyrhachis rastellata euryalus SMITH; EMERY, 1900b: 720 [as variety]; EMERY, 1925: 208
Polyrhachis rastellata torricellianus VIEHMEYER, 1912: 9 [synonymy by VIEHMEYER, 1914: 50]

Polyrhachis rastellata euryala SMITH; VIEHMEYER, 1914c: 25

Polyrhachis euryalus SMITH; DONISTHORPE, 1938b: 259

Polyrhachis rastellata euryalus SMITH; CHAPMAN & CAPCO, 1951: 266

***Polyrhachis euryala goramensis* EMERY**

Polyrhachis rastellata var. *goramensis* EMERY, 1887a: 239

Polyrhachis rastellata euryala var. *goramensis* EMERY; VIEHMEYER, 1914c: 50; EMERY, 1925: 208 [name not available]

Polyrhachis euryalus var. *goramensis* EMERY; DONISTHORPE, 1938b: 260

Polyrhachis euryalus var. *goramensis* EMERY; CHAPMAN & CAPCO, 1951: 265 [misspelling]

Polyrhachis rastellata var. *goramensis* EMERY; CHAPMAN & CAPCO, 1951: 265 [misspelling]

***Polyrhachis euryala javana* KARAWAJEW [stat. n.]**

Polyrhachis rastellata euryala var. *javana* VIEHMEYER, 1914c: 51; EMERY, 1925: 208; CHAPMAN & CAPCO, 1951: 266 [name not available]

Polyrhachis rastellata var. *javana*; KARAWAJEW, 1927: 49 [first available use of the name]

***Polyrhachis fornicata* EMERY [stat. rev.]**

Polyrhachis rastellata fornicata EMERY, 1900b: 720

Polyrhachis fornicata EMERY; DONISTHORPE, 1938b: 261

Polyrhachis rastellata fornicata EMERY; CHAPMAN & CAPCO, 1951: 266

***Polyrhachis gibba* EMERY**

Polyrhachis gibba EMERY, 1901b: 580

***Polyrhachis grandis* DONISTHORPE**

Polyrhachis grandis DONISTHORPE, 1949b: 415

***Polyrhachis jurii* KARAWAJEW**

Polyrhachis jurii KARAWAJEW, 1935: 116

***Polyrhachis laevissima laevissima* SMITH**

Polyrhachis laevissimus SMITH, 1858: 64

Polyrhachis globularia MAYR, 1867: 41 [synonymy by MAYR, 1879: 651]

Polyrhachis levissima SMITH; DALLA TORRE, 1893: 264 [incorrect subsequent spelling]

***Polyrhachis laevissima aruensis* VIEHMEYER**

Polyrhachis laevissima var. *aruensis* VIEHMEYER, 1912: 9 [incorrect original spelling]

***Polyrhachis laevissima dichroa* FOREL**

Polyrhachis laevissima var. *dichroa* FOREL, 1893a: 21 [incorrect original spelling]

***Polyrhachis leonidas* FOREL**

Polyrhachis leonidas FOREL, 1901b: 34

***Polyrhachis levior* ROGER**

Polyrhachis laevissimus SMITH, 1859: 141 [junior primary homonym of *P. laevissima* SMITH, 1858: 64]

Polyrhachis levior ROGER, 1863: 8 [replacement name for *P. laevissimus* SMITH, 1859: 14 nec 1858: 64]

Polyrhachis rastellata r. *levior* ROGER; EMERY, 1887a: 240; EMERY, 1925: 208 [misspelling]

Polyrhachis levior ROGER; DALLA TORRE, 1893: 264 [misspelling]

Polyrhachis rastellata r. *levior* ROGER; FOREL, 1915a: 110

Polyrhachis levior ROGER; DONISTHORPE, 1938b: 248; TAYLOR & BROWN, 1985: 137

***Polyrhachis liniae* DONISTHORPE**

Polyrhachis liniae DONISTHORPE, 1938b: 262

***Polyrhachis luctuosa* EMERY**

Polyrhachis luctuosa EMERY, 1921a: 25

***Polyrhachis mackayi* DONISTHORPE**

Polyrhachis mackayi DONISTHORPE, 1938b: 258

***Polyrhachis mondoi* DONISTHORPE**

Polyrhachis mondoi DONISTHORPE, 1938b: 250

***Polyrhachis pilosa* DONISTHORPE**

Polyrhachis rastellata r. *levior* var. *pilosa* FOREL, 1902b: 527 [name not available]

Polyrhachis rastellata levior var. *pilosa* FOREL; EMERY, 1925: 208 [name not available]

Polyrhachis rastellata var. *pilosa* DONISTHORPE,
1938b: 256 [first available use of "*pilosa*"]
Polyrhachis pilosa DONISTHORPE; KOHOUT &
TAYLOR, 1990: 518

***Polyrhachis ralumensis* FOREL**

Polyrhachis ralumensis FOREL, 1901b: 34
Polyrhachis rastellata var. *major* STITZ, 1911:
381 [synonymy by VIEHMEYER, 1914: 50]

***Polyrhachis rastellata rastellata*
(LATREILLE)**

Formica rastellata LATREILLE, 1802: 130
Polyrhachis rastellata (LATREILLE); SMITH,
1858: 59
Polyrhachis busiris SMITH, 1860b: 98 [synonymy
by MAYR, 1862: 688]
Polyrhachis rastellatus (LATREILLE); MAYR,
1862: 688 [unjustified emendation]
Polyrhachis rastellata var. *ceylonensis* DONIS-
THORPE, 1938b: 256 [junior homonym of *P.*
ceylonensis EMERY in FOREL, 1893a: 22; **syn.**
n.]
Polyrhachis busirii SMITH; CHAPMAN & CAPCO,
1951: 265 [misspelling]

***Polyrhachis rastellata baduri*
DONISTHORPE**

Polyrhachis rastellata var. *baduri* DONISTHORPE,
1941b: 63

***Polyrhachis rastellata celebensis*
VIEHMEYER**

Polyrhachis rastellata var. *celebensis* VIEHMEY-
ER, 1913: 155 [fossil]

***Polyrhachis rastellata congener* SANTSCHI**

Polyrhachis rastellata var. *congener* SANTSCHI,
1928a: 135

***Polyrhachis rastellata corporaali* SANTSCHI**

Polyrhachis rastellata var. *corporaali* SANTSCHI,
1928a: 134

***Polyrhachis rastellata fulakora* MANN**

Polyrhachis rastellata var. *fulakora* MANN, 1919:
389

***Polyrhachis rastellata nomo* DONISTHORPE**

Polyrhachis rastellata var. *nomo* DONISTHORPE,
1941a: 142

***Polyrhachis rastellata pagana* SANTSCHI**

Polyrhachis rastellata var. *pagana* SANTSCHI,
1928a: 134
Polyrhachis rastellata var. *pagans* SANTSCHI;
CHAPMAN & CAPCO, 1951: 265 [misspelling]

***Polyrhachis rastellata semiinermis*
DONISTHORPE**

Polyrhachis rastellata semiinermis DONISTHOR-
PE, 1941c: 209
Polyrhachis rastellata var. *semi-inermis* DONIS-
THORPE; CHAPMAN & CAPCO, 1951: 265 [mis-
spelling]

***Polyrhachis townsvillei* DONISTHORPE**

Polyrhachis townsvillei DONISTHORPE, 1938b:
251

***Polyrhachis ugiensis* MANN**

Polyrhachis rastellata ugiensis MANN, 1919: 389
Polyrhachis ugiensis MANN; DONISTHORPE,
1938b: 260

***Polyrhachis vitalisi* SANTSCHI**

Polyrhachis vitalisi SANTSCHI, 1920b: 567

***Polyrhachis wagneri* VIEHMEYER**

Polyrhachis wagneri VIEHMEYER, 1914c: 51

***Polyrhachis yorkana* FOREL**

Polyrhachis rastellata var. *yorkana* FOREL,
1915a: 110
Polyrhachis yorkana FOREL; KOHOUT & TAY-
LOR, 1990: 521

**Subgenus *Hagiomyrma* WHEELER
[fig. 5]**

Polyrhachis (*Hagiomyrma*) WHEELER, 1911: 860.
Type-species: *Formica ammon* FABRICIUS,
1775: 394, by original designation.

Polyrhachis (Chariomyrma) partim [sensu EMERY, 1925: 188; sensu DONISTHORPE, 1932b: 469]

WHEELER (1911) introduced the subgenus for EMERY'S (1896) "cohors *Polyrhachides arciferae*". EMERY (1896) characterized this group as: "all species with long spines on the petiole, which are curved to embrace the gaster; thorax marginate or not; propodeal spines always longer and stronger than those of the pronotum, sometimes the latter are rudimentary or totally lacking". FOREL (1915) criticized that WHEELER (1911) did not give the limits of his newly established subgenus and restricted *Hagio-myrrina* to "manipulus *P. ammon*", but also FOREL failed to give a description. EMERY (1925) described the subgenus as: "thorax marginate without lobes; thorax on top, between the margination, relatively flat, weakly convex in sideview; pronotum with shoulders but without spines or teeth; thoracic sutures distinct or the meso-propodeal furrow more or less indistinct; propodeal spines generally long; petiole of different shapes, often like in the subgenus *Hedomyrma*; with one single pair of upright spines which are lowered at the tip or curved to embrace the gaster; first gastral segment large; female resembling the worker concerning the arrangement of the spines" (own translation).

The thorax of these species is marginate but the genae are immarginate. They are large ground nesting, non-weaving species. The center of speciation is Australia from where New Guinea and adjacent islands have been colonized.

The subgenus comprises 18 species, which were not divided into species-groups by EMERY (1925). COMMON & WATERHOUSE (1981) listed a *Polyrhachis ammon*-group without further comments, probably only to place an undetermined species in relationship to *P. ammon*.

Distribution: Australia, Bismarck-Archipelago, Indonesia, New Guinea; probably wrong notice of *P. con-similis* from Africa (Sierra Leone)

List of species:

Polyrhachis ammon (FABRICIUS)

Formica ammon FABRICIUS, 1775: 394

Polyrhachis ammon (FABRICIUS); SMITH, 1858: 73

Polyrhachis ammon var. *angustata* FOREL, 1902b: 525 [synonymy by KOHOUT, 1988c: 430]

Polyrhachis ammonocides ROGER

Polyrhachis ammon (FABRICIUS, 1775: 394) partim [sensu FOREL, 1879: 116]

Polyrhachis ammonocides ROGER, 1863: 157

Polyrhachis ammon st. *ammonocides* ROGER; FOREL, 1879: 116

Polyrhachis ammonocides ROGER; DALLA TORRE, 1893: 258; TAYLOR & BROWN, 1985: 131

Polyrhachis chalcas FOREL, 1907a: 307; KOHOUT, 1994a: 135

Polyrhachis angusta FOREL

Polyrhachis ammon r. *angusta* FOREL, 1902b: 524

Polyrhachis angusta FOREL; KOHOUT, 1988c: 431

Polyrhachis crawleyi FOREL

Polyrhachis ammonocides var. *crawleyi* FOREL, 1916a: 447

Polyrhachis crawleyi FOREL; KOHOUT, 1988c: 433

Polyrhachis denticulata KARAWAJEW

Polyrhachis denticulata KARAWAJEW, 1927: 13

Polyrhachis lachesis EMERY

Polyrhachis lachesis EMERY, 1897a: 582

Polyrhachis lydiae FOREL

Polyrhachis schenki r. *lydiae* FOREL, 1902b: 523 [incorrect original spelling of *P. schenckii* FOREL]

Polyrhachis lydiae FOREL; KOHOUT, 1988c: 434

Polyrhachis metella SMITH

Polyrhachis metella SMITH, 1867: 99

Polyrhachis metella SMITH; CHAPMAN & CAPCO, 1951: 267 [misspelling]

Polyrhachis paxilla SMITH

Polyrhachis paxilla SMITH, 1863: 17

Polyrhachis (Chariomyrma) paxillus SMITH; EMERY, 1925: 188

Polyrhachis lachesis maeandriifera EMERY, 1897a: 582 [synonymy by KOHOUT, 1988c: 435]

Polyrhachis lachesis maeandriifera EMERY; CHAPMAN & CAPCO, 1951: 267 [misspelling]

Polyrhachis penelope* FORELPolyrhachis penelope* FOREL, 1895b: 46***Polyrhachis schenkii* FOREL***Polyrhachis schenkii* FOREL, 1886b: 198*Polyrhachis schenkii* FOREL; DALLA TORRE, 1893: 268 [misspelling]*Polyrhachis schencki* FOREL; EMERY, 1925: 185; CHAPMAN & CAPCO, 1951: 267 [misspelling]***Polyrhachis semiaurata* MAYR***Polyrhachis semiaurata* MAYR, 1876: 71***Polyrhachis semiobscura* DONISTHORPE***Polyrhachis semiobscura* DONISTHORPE, 1944: 65***Polyrhachis sokolova* FOREL***Polyrhachis sokolova* FOREL, 1902b: 522*Polyrhachis sokolova* var. *degener* FOREL, 1910c: 84 [synonymy by KOHOUT, 1988c: 436]***Polyrhachis thusnelda* FOREL***Polyrhachis thusnelda* FOREL, 1902b: 509***Polyrhachis trapezoidea* MAYR***Polyrhachis trapezoidea* MAYR, 1876: 72*Polyrhachis ammon* r. *trapezoidea* MAYR; FOREL, 1915a: 108*Polyrhachis trapezoidea* MAYR; EMERY, 1925: 185***Polyrhachis tubifera* FOREL***Polyrhachis tubifera* FOREL, 1902b: 517***Polyrhachis xiphias* SMITH***Polyrhachis xiphias* SMITH, 1863: 16**Subgenus *Hedomyrma* FOREL [fig. 6]***Polyrhachis (Hedomyrma)* FOREL, 1915a: 107.Type-species: *Polyrhachis ornata* MAYR, 1876: 73, by original designation.*Polyrhachis (Dolichorhachis)* MANN, 1919: 386.Type species: *Polyrhachis (Dolichorhachis) malaensis* MANN, 1919: 386, by monotypy. [syn. n.]*Polyrhachis (Morleyidris)* DONISTHORPE, 1944:64. Type species: *Polyrhachis (Morleyidris)**trina* DONISTHORPE, 1944: 64, by original designation. [synonymy by Hung, 1967a: 402]

WHEELER (1911) transferred the whole "cohors *Polyrhachides arciferae*" including the "manipulus *P. ornata*" into the new subgenus *Hagiomyrma*. FOREL (1915) introduced the subgenus *Hedomyrma* for EMERY'S (1896) "manipulus *P. ornata*" without further descriptions. EMERY (1925) gave the first description: "body very massive; thorax blunt-edged marginate; pronotum more or less arched; pronotum much shorter than mesonotum + proximal part of the propodeum; pro-mesonotal suture more or less impressed; meso-propodeal suture totally lacking (vestigial in *P. erato* FOREL); spines on pronotum short, shorter than those of the propodeum; petiole with the shape common to the subgenera *Hagiomyrma*, *Chariomyrma* and *Myrmhopla*: its profile is proximally straight and forms a nearly right angle with the dorsal plane, declines distally to embrace the spines; spines inserting at the proximal dorsal angle, which is higher and surrounding the dorsal plane; spines elongated and curved to embrace the basal segment of the gaster; first gastral segment large; female resembling the worker very much" (own translation).

The thorax of these species is marginate but the genae are immarginate. They are large arboreal weaver ants. The center of speciation is Australia from where New Guinea and adjacent islands have been colonized.

The subgenus comprises 30 species which have not been divided into species-groups.

Distribution: Australia, Indonesia, New Guinea, Oceania, Solomons

List of species:***Polyrhachis annae* MANN***Polyrhachis annae* MANN, 1919: 377***Polyrhachis argentosa* FOREL***Polyrhachis daemeli* r. *argentosa* FOREL, 1902b: 515*Polyrhachis argentosa* FOREL; KOHOUT, 1988c: 431

***Polyrhachis atropos atropos* SMITH**

Polyrhachis atropos SMITH, 1860b: 100
Polyrhachis eucharis KARAWAJEW, 1927: 22
 [synonymy by KOHOUT & TAYLOR, 1990: 513]

***Polyrhachis atropos circumdata*
VIEHMEYER**

Polyrhachis circumdata VIEHMEYER, 1913: 152
 [fossil]
Polyrhachis atropos var. *circumdata* VIEHMEYER;
 VIEHMEYER, 1914c: 52

***Polyrhachis atropos tersa* VIEHMEYER**

Polyrhachis atropos var. *tersa* VIEHMEYER,
 1914c: 52

***Polyrhachis barretti* CLARK**

Polyrhachis barretti CLARK, 1928a: 170

***Polyrhachis calliope* EMERY**

Polyrhachis calliope EMERY, 1900a: 335

***Polyrhachis cleopatra* FOREL**

Polyrhachis cleopatra FOREL, 1902b: 513

***Polyrhachis clio* FOREL**

Polyrhachis clio FOREL, 1902b: 515

***Polyrhachis clotho* FOREL**

Polyrhachis clotho FOREL, 1902b: 525
Polyrhachis (*Myrmhopla*) *clotho* FOREL; EMERY,
 1925: 195 [association with the *P. dives*-
 group]
Polyrhachis (*Hedomyrma*) *clotho* FOREL; KO-
 HOUT & TAYLOR, 1990: 512

***Polyrhachis consimilis* SMITH**

Polyrhachis consimilis SMITH, 1858: 73

***Polyrhachis cupreata* EMERY**

Polyrhachis hermiene var. *cupreata* EMERY,
 1895b: 357
Polyrhachis daemeli var. *exlex* FOREL, 1915a:
 110 [synonymy by KOHOUT, 1988c: 433]
Polyrhachis cupreata EMERY; KOHOUT, 1988c:
 433

***Polyrhachis daemeli daemeli* MAYR**

Polyrhachis daemeli MAYR, 1876: 72
Polyrhachis daemeli MAYR; DALLA TORRE,
 1893: 261 [incorrect subsequent spelling]

***Polyrhachis daemeli sulciventris* MAYR**

Polyrhachis daemeli var. *sulciventris* EMERY;
 FOREL, 1915a: 111

***Polyrhachis dolichocephala* VIEHMEYER
[subgen. comb. n.]**

Polyrhachis (*Dolichorhachis*) *dolichocephala*
 VIEHMEYER, 1914b: 532
Polyrhachis (*Dolichorhachis*) *dolichocephala*
 VIEHMEYER; CHAPMAN & CAPCO, 1951: 267
 [misspelling]

***Polyrhachis erato* FOREL**

Polyrhachis erato FOREL, 1902b: 512
Polyrhachis aeschyle FOREL, 1915a: 111 [syno-
 nymy by KOHOUT, 1988c: 434]

***Polyrhachis euterpe* FOREL**

Polyrhachis euterpe FOREL, 1902b: 511

***Polyrhachis fervens* SMITH
[subgen. comb. n.]**

Polyrhachis fervens SMITH, 1860b: 101
Polyrhachis valerus SMITH, 1861: 40 [synonymy
 by KOHOUT, 1988c: 434]
Polyrhachis (*Dolichorhachis*) *fervens* SMITH;
 EMERY, 1925: 189; DONISTHORPE, 1932b: 461
Polyrhachis bicolor KARAWAJEW, 1927: 21 [jun-
 ior primary homonym of *P. bicolor* SMITH,
 1858: 65]
Polyrhachis indocilis Santschi, 1928a: 139 [re-
 placement name for *P. bicolor* KARAWAJEW;
 synonymy by KOHOUT, 1988c: 434]
Polyrhachis kershawi CLARK, 1930: 12 [syno-
 nymy by KOHOUT, 1988c: 434]

***Polyrhachis geminata* MANN**

Polyrhachis geminatus MANN, 1919: 376

***Polyrhachis hera* FOREL**

Polyrhachis hera FOREL, 1911b: 302

Polyrhachis hermione* EMERYPolyrhachis hermione* EMERY, 1895b: 357***Polyrhachis hungi* BOLTON***Polyrhachis nitens* DONISTHORPE, 1944: 65 [junior primary homonym of *P. (Chariomyrma) nitens* DONISTHORPE, 1943c: 464]*Polyrhachis hungi* BOLTON, 1974: 173 [replacement name for *P. nitens* DONISTHORPE]***Polyrhachis machaon* Santschi***Polyrhachis machaon* Santschi, 1920b: 568***Polyrhachis malaensis* MANN
[subgen. comb. n.]***Polyrhachis (Dolichorhachis) malaensis* MANN, 1919: 386*Polyrhachis mucronata malaensis* MANN, 1919: 275 [probably mistake for *P. malaensis* MANN]***Polyrhachis mjobergi* FOREL***Polyrhachis mjobergi* FOREL, 1915a: 112 [incorrect original spelling]*Polyrhachis anguliceps* VIEHMEYER, 1925: 148 [synonymy by KOHOUT, 1988c: 435]*Polyrhachis mjobergi* FOREL, TAYLOR, 1987: 61***Polyrhachis ornata* MAYR***Polyrhachis ornata* MAYR, 1876: 73*Polyrhachis humerosa* EMERY, 1921a: 18 [synonymy by KOHOUT, 1988c: 435]*Polyrhachis chrysothorax* VIEHMEYER, 1925: 148 [synonymy by KOHOUT, 1988c: 435]***Polyrhachis rufifemur* FOREL***Polyrhachis terpsichore* var. *rufifemur* FOREL, 1907c: 41*Polyrhachis terpsichore elegans* FOREL, 1910c: 84 [synonymy by KOHOUT & TAYLOR, 1990: 512]*Polyrhachis rufifemur* FOREL, BROWN, 1958: 49***Polyrhachis santschi santschi* MANN***Polyrhachis santschi* MANN, 1919: 375*Polyrhachis santschii* MANN; EMERY, 1925: 190 [misspelling]***Polyrhachis santschi campbelli* MANN***Polyrhachis santschi campbelli* MANN, 1919: 376***Polyrhachis terpsichore* FOREL***Polyrhachis terpsichore* FOREL, 1893c: 455***Polyrhachis thais* FOREL***Polyrhachis thais* FOREL, 1910c: 86***Polyrhachis trina* DONISTHORPE***Polyrhachis (Morleyidris) trina* DONISTHORPE, 1944: 64*Polyrhachis (Hedomyrma) trina* DONISTHORPE; Hung, 1967a: 402 [indirect transfer of species by synonymy of the subgenus]***Polyrhachis turneri* FOREL***Polyrhachis turneri* FOREL, 1895b: 45***Polyrhachis violaceonigra* VIEHMEYER***Polyrhachis violaceonigra* VIEHMEYER, 1914c: 53**Subgenus *Hemioptica* ROGER
[subgen. stat. rev.] [fig. 7]***Hemioptica* ROGER, 1862: 238. Type-species: *Hemioptica scissa* ROGER, 1862: 240, by monotypy.*Polyrhachis* Turma *Abrupta* MAYR, 1867: 62 *Hemioptica* ROGER, MAYR, 1868a: 6→ *Hemioptica (Polyrhachis?)*; SMITH, 1871: 318*Polyrhachis* Gruppe *Abrupta*, (*Hemioptica* ROG.); MAYR, 1879: 651*Hemioptica* ROGER, DALLA TORRE, 1893: 271*Polyrhachis* SMITH, 1857: 58 partim [sensu BINGHAM, 1896: 405]*Polyrhachis (Hemioptica) (ROGER)*; FOREL, 1908: 11*Hemioptica* ROGER; EMERY, 1921a: 18*Polyrhachis (Hemioptica) (ROGER)*; WHEELER, 1922: 701*Hemioptica* ROGER; EMERY, 1925: 209; CHAPMAN & CAPCO, 1951: 255; HUNG, 1962: 22; 1967: 398*Polyrhachis* SMITH, 1857: 58 partim [sensu BROWN, 1973: 181; sensu HÖLDOBLER & WILSON, 1990: 19]

ROGER (1862) described *Hemioptica* as follows: "The form of the eyes, which are situated on an ear-like projection of the head and a deep slit transverse the thorax separate this genus from all others. In frontal view the head is egg-shaped and longish, narrowing slightly behind the eyes, and in side view the head has the shape of a shifted quadrangular; its frontal side is strongly arched, and unlike in *Polyrhachis* the rear side is neither straight or curved, but angular in the middle between the occipital foramen and the mandibles. The clypeus is medium sized, arched, rounded anteriorly, truncate at the border of the triangular area above the clypeus and has only weakly visible sideparts. Its pits are indistinct. The frontal carinae are very strongly upcurved which makes the front part of the head look strongly arched, they are broadest in the middle, where they are nearly angularly enlarged; just in front of this the antennae are inserted. The antennae have 12 segments and a long and strong scape and otherwise are totally like those of *Polyrhachis*. Also the palps are alike those in that genus. The mandibles are strong, have 5-6 teeth, otherwise they are of the usual shape. The moderately large compound eyes are situated far to the back on an ear-like projection, they are facing forward and are slightly convex; in side view the posterior part is lacking, they are excavated posteriorly and this excavation is filled with the above mentioned projection. The pronotum is arched, bent down anteriorly, impressed parallel to the relatively acute anterior border, with pointed anterior corners and fused with the mesonotum. Between mesonotum and metanotum there is a narrow deep furrow transverse to the thorax which nearly reaches the meso- and metasternum. The anterior border of that furrow is slightly widened into a bay at two points, and therefore has a protuberance at the center and at each side; the posterior border of the furrow has the same shape (but not that obvious), and partly overarches the furrow. The basal part of the metanotum is strongly arched, the steep part is vertical and separated from the basal part by an acute edge, the steep part has a broad arch projection at its base. The petiole is broader than long, thick, strongly narrowing to the top. The gaster is globose, compared to the petiole a little flattened. The legs are moderately long; the spurs of the front tibiae are feathered, those of the other legs are simple. The claws are simple.

Female:

Head and especially the eyes exactly as in the worker. 3 ocelli. The pronotum is much broader than long, has nearly rectangular anterior corners and is lower than the mesonotum; the mesonotum is arched relatively high. The scutellum is strongly convex; the postscutellum is a small strip and is lower than scutellum and metanotum. The furrow between metanotum and mesonotum is lacking. The basal part

of the metanotum is much broader than long, strongly arched and separated from the vertical part by an acute edge. The gaster is globose. The cubital cell of the forewing is closed" (own translation).

EMERY (1925) pointed out the different forms of the eyes within this subgenus (genus sensu EMERY): "head rounded posteriorly; eyes behind the midline, large, prominent and truncate laterally in *P. scissa* ROGER, small and simple in *P. bugnioni*" (own translation).

The changing history of "*Hemioptica*" was due to the judgement on the validity and weighting of the characters "truncate eyes" and "deep furrow between mesonotum and propodeum", which caused some authors to accept it as a genus, others as a subgenus of *Polyrhachis* and others as a mere synonym of the latter genus. According to this judgement some authors accepted *Hemioptica* in a broad sense, e. g., MAYR (1862, 1866), BINGHAM (1903), WHEELER (1919), CHAPMAN & CAPCO (1951), while EMERY (1925) excluded several species and transformed them to the subgenus *Myrma*. I follow EMERY's opinion, that only *P. scissa* and *P. bugnioni* are relatives, but accept *Hemioptica* only as a subgenus of *Polyrhachis*. A revision of the subgenus is in preparation (DOROW & KOHOUT).

The thorax of these species is immarginate, but the genae are marginate. They are arboreal ants of Indomalayan origin. *Polyrhachis scissa* is a weaver ant, nesting in shrubs and trees, the life habits of *P. bugnioni* are unknown.

The subgenus comprises two described and one undescribed species.

Distribution: India, Indonesia, Malaysia, Sri Lanka

List of species:

Polyrhachis bugnioni FOREL

Polyrhachis (Hemioptica) bugnioni FOREL, 1908: 11

Hemioptica bugnioni FOREL; EMERY, 1925: 210

Polyrhachis bugnioni FOREL; BROWN, 1973: 181
[indirect transfer of species by generic synonymy]

Polyrhachis scissa (ROGER)

Hemioptica scissa ROGER, 1862: 240

Polyrhachis scissa (ROGER); MAYR, 1867: 62

Hemioptica scissa ROGER; EMERY, 1925: 210

Subgenus *Myrma* BILLBERG [figs. 8, 9]

Myrma BILLBERG, 1820: 104. Type-species: *Formica militaris* FABRICIUS, 1782: 493, by subsequent designation of WHEELER, 1911: 859. *Polyrhachis* (*Hemioptica*) partim [sensu MAYR, 1867: 62]. *Hemioptica* partim [sensu BINGHAM, 1903: 380]. *Polyrhachis* (*Cyrtomyrma*) partim [sensu FOREL, 1915a: 107]. *Polyrhachis* (*Campomyrma*) partim [sensu VIEHMEYER, 1916b: 287]. *Polyrhachis* (*Pseudocyrtomyrma*) EMERY, 1921a: 18. Type species: *Polyrhachis revoili* ANDRÉ, 1887: 285 [synonymy by BOLTON, 1973b: 288]. *Polyrhachis* (*Anoplomyrma*) CHAPMAN, 1963: 258. Type species: *Polyrhachis* (*Anoplomyrma*) *parabiotica* CHAPMAN, 1963: 258 [syn. n.].

BILLBERG (1820) did not describe his new genus *Myrma* but only associated *Formica carinata* and *Formica militaris* with it. WHEELER (1911), who rediscovered the name, transferred EMERY'S (1896) "cohors *Polyrhachides carinatae*" to the subgenus *Myrma*. EMERY (1896) described his "cohors" as: "characterized by the usually marginate thorax of the workers, only rarely not marginate, but then dorsally strongly convex posteriorly. Teeth of pronotum always stronger developed than those of the propodeum (...). Petiolar scale with different combinations of spines but never curved embracing the gaster" (own translation). FOREL reduced the subgenus to the "turma *relucens*" sensu MAYR (1867) and created the new subgenus *Cyrtomyrma* for EMERY'S (1896) "manipulus *rastellata*". EMERY (1925) described the subgenus in this reduced sense: "worker: thorax marginate, generally flat on top, sometimes longitudinally like a gutter or, on the contrary, convex (grading into the subgenus *Pseudocyrtomyrma*); meso-propodeal-suture distinct; pronotal spines usually strong and long, orientated more or less horizontally and oblique proximally (typical group *militaris-relucens militaris*), or tooth-like and sometimes directed outwards; the teeth (or rarely spines) of the propodeum erect, rarely lacking; petiole usually armed with two pairs of spines, upright or a little curved (typical group); sometimes the lateral spines are lacking, and in *P. laboriosa* the median spines are curved hook-like; in some species the median spines are totally reduced and the top of the scale is therefore arched like in *Aulacomyrma* or *Campomyrma*; in some small African species (*P. decemdentata*, *P. andrei*, etc.) they ...have six teeth; in species of the typical group there

is one additional unpaired tooth between the median teeth; basal segment of gaster covering more than half of the gaster; female: the spines or teeth are like in the workers" (own translation).

This subgenus comprises a large and widely distributed group, which has centers of speciation in Africa as well as in the Indomalayan Region. The thorax is more or less marginate, the genae are marginate in some species. Small and large species occur and weaver ants as well as non-weavers.

The subgenus comprises 109 species. BOLTON (1973) revised the African species, KOHOUT (1989) the Australian ones.

EMERY (1925) distinguished five species-groups by the spination of prothorax and petiole and by the vaulting and margination of the thorax: *Polyrhachis abrupta*-group, *Polyrhachis laboriosa*-group, *Polyrhachis militaris-relucens militaris*-group (which he geographically divided into African and Australasian species), *Polyrhachis viscosa-decendentata*-group and *Polyrhachis zopyrus*-group. He accepted the subgenus *Pseudocyrtomyrma*, which he separated from the subgenus *Myrma* by size and form of the head, length of the thorax, form of the propodeum and the criteria described above.

BOLTON (1973) synonymized *P. (Pseudocyrtomyrma)* with *P. (Myrma)* and divided the African species into the following species-groups:

***Polyrhachis alexisi*-group:** *P. alexisi*, *P. curta*, *P. latharis*, *P. lestoni*, *P. limitis*

***Polyrhachis gamaii*-group:** *P. gamaii*

***Polyrhachis militaris*-group:** *P. alluaudi*, *P. andrei*, *P. asomaringi*, *P. concava*, *P. cornuta*, *P. decellei*, *P. decemdentata*, *P. esarata*, *P. fissa*, *P. gagates*, *P. laboriosa*, *P. latispina*, *P. lauta*, *P. medusa*, *P. militaris*, *P. phidias*, *P. rufipalpis*, *P. schistacea*, *P. schluederi*, *P. sulcata*, *P. wellmani*

***Polyrhachis monista*-group:** *P. monista*, *P. spittleri*

***Polyrhachis revoili*-group:** *P. aenesens*, *P. braxa*, *P. khepra*, *P. lanuginosa*, *P. otleti*, *P. platyomma*, *P. resgesa*, *P. revoili*, *P. transiens*, *P. volkarti*, *P. weissii*

***Polyrhachis viscosa*-group:** *P. arnoldi*, *P. cubaensis*, *P. durbanensis*, *P. nigrita*, *P. spinicola*, *P. viscosa*

KOHOUT (1989) associated all Australian species (*P. andromache*, *P. foreli*, *P. inusitata*, *P. relucens*, *P. rufofemorata*) with the *Polyrhachis* (*Myrma*) *relucens*-group, which also occurs in Asia.

Distribution:

Africa: Angola, Cameroon, Congo, Gabon, Ghana, Ivory Coast, Kenya, Liberia, Mosambique, Natal, Sierra Leone, Somalia, Transvaal, Zimbabwe
 Asia and Australia: Australia, Bangladesh (new), Bismarck-Archipelago, Burma, China, Hong Kong, India, Indochina, Indonesia, Malaysia, New Guinea, New Hebrides, Oceania, Philippines, Saudi Arabia (COLLINGWOOD, pers. comm.), Singapore, Solomons, Sri Lanka, Taiwan, Thailand, Yemen (COLLINGWOOD, pers. comm.)

List of species:

***Polyrhachis abrupta* MAYR**

Polyrhachis (Hemioptica) abrupta MAYR, 1867: 62

Polyrhachis orsyllus st. *halmaheirae* FOREL, 1886b: 196 [synonymy by EMERY, 1925: 204]

Polyrhachis halmaheirae FOREL; DALLA TORRE, 1893: 263

Polyrhachis (Myrma) abrupta MAYR; EMERY, 1925: 204

***Polyrhachis aculeata aculeata* MAYR**

Polyrhachis aculeata MAYR, 1879: 657

Hemioptica aculeata (MAYR); BINGHAM, 1903: 382

Polyrhachis (Hemioptica) aculeata MAYR; WHEELER, 1919: 126

Polyrhachis (Myrma) aculeata MAYR; EMERY, 1925: 205

Hemioptica aculeata (MAYR); CHAPMAN & CAPCO, 1951: 255

***Polyrhachis aculeata cybele* WHEELER**

Polyrhachis (Hemioptica) aculeata cybele WHEELER, 1919: 126

Polyrhachis (Myrma) aculeata cybele WHEELER; EMERY, 1925: 205

Hemioptica aculeata cybele (WHEELER); CHAPMAN & CAPCO, 1951: 255

***Polyrhachis aculeata gibbosa* FOREL**

Polyrhachis aculeata var. *gibbosa* FOREL, 1908: 9

Polyrhachis (Hemioptica) aculeata gibbosa FOREL; WHEELER, 1919: 126

Polyrhachis (Myrma) aculeata var. *gibbosa* FOREL; EMERY, 1925: 205

Hemioptica aculeata var. *gibbosa* (FOREL); CHAPMAN & CAPCO, 1951: 255

***Polyrhachis aenescens* STITZ**

Polyrhachis aenescens STITZ, 1910: 151

***Polyrhachis aerope* WHEELER**

Polyrhachis aerope WHEELER, 1922: 265

***Polyrhachis alexisi* FOREL**

Polyrhachis (Cyrtomyrma) alexisi FOREL, 1916a: 455

Polyrhachis (Pseudocyrtomyrma) alexisi FOREL; EMERY, 1925: 206

Polyrhachis (Myrma) alexisi FOREL; BOLTON, 1973b: 288

***Polyrhachis alluaudi* EMERY**

Polyrhachis alluaudi EMERY, 1892: 567

Polyrhachis alluaudii EMERY; DALLA TORRE, 1893: 258 [incorrect subsequent spelling]

Polyrhachis alluaudi var. *anteplana* FOREL, 1916a: 448 [synonymy by BOLTON, 1973b: 297]

***Polyrhachis andrei* EMERY**

Polyrhachis andrei EMERY, 1921a: 22

***Polyrhachis andromache andromache* ROGER**

Polyrhachis sumatrensis SMITH, 1858: 65 partim [sensu MAYR, 1879: 655; synonymy by EMERY, 1925: 202 with *P. relucens andromache* ROGER]

Polyrhachis hector SMITH, 1859: 142 [junior homonym of *P. hector* SMITH, 1857: 62]

Polyrhachis ithona SMITH, 1860b: 99 partim

[sensu BOLTON, 1974: 177; TAYLOR & BROWN, 1985: 136]

Polyrhachis chaonia SMITH, 1861: 42 [synonymy by BOLTON, 1973b: 177 with *P. ithona* SMITH]

Polyrhachis andromache ROGER, 1863: 8 [replacement name for *P. hector* SMITH, 1859: 142]

Polyrhachis connectens EMERY, 1887a: 230 [synonymy by EMERY, 1897a: 580 with *P. relucens andromache* ROGER]

Polyrhachis connectens var. *australiae* EMERY, 1887a: 231

Polyrhachis hector var. *connectens* MAYR, i. 1. [synonymy by DALLA TORRE, 1893: 267]

Polyrhachis relucens var. *connectens* EMERY; DALLA TORRE, 1893: 267

Polyrhachis relucens var. *hector* SMITH; DALLA TORRE, 1893: 267

Polyrhachis relucens decipiens var. *australiae* EMERY; EMERY, 1897a: 580 [name not available]

Polyrhachis relucens andromache ROGER; EMERY, 1897a: 580

Polyrhachis relucens andromache var. *nesiotis* MANN, 1919: 380 [name not available]

Polyrhachis relucens st. *andromache* var. *vaga* SANTSCHI, 1932: 21 [name not available]

Polyrhachis relucens andromache ROGER; DONISTHORPE, 1949b: 420 [misspelling]

Polyrhachis relucens australiae EMERY; TAYLOR & BROWN, 1985: 140

Polyrhachis relucens australiae TAYLOR & BROWN, 1985: 140 [wrong authors and synonymy by KOHOUT, 1988c: 431]

Polyrhachis andromache ROGER; KOHOUT, 1988c: 430 [stat. rev.]

***Polyrhachis andromache semitestacea* EMERY**

Polyrhachis andromache var. *semitestacea* EMERY, 1900a: 334

Polyrhachis relucens andromache var. *semitestacea* EMERY; EMERY, 1925: 202 [name not available]

***Polyrhachis arnoldi* FOREL**

Polyrhachis arnoldi FOREL, 1914a: 263

***Polyrhachis asomaningi* BOLTON**

Polyrhachis asomaningi BOLTON, 1973b: 298

***Polyrhachis bakeri* VIEHMEYER**

Polyrhachis bakeri VIEHMEYER, 1916b: 287

Polyrhachis (Camponymrma) bakeri VIEHMEYER; EMERY, 1925: 204

Polyrhachis (Myrma) bakeri VIEHMEYER; CHAPMAN & CAPCO, 1951: 269

***Polyrhachis beccarii* MAYR**

Polyrhachis beccarii MAYR, 1872: 141

***Polyrhachis biroi biroi* FOREL**

Polyrhachis biroi FOREL, 1907c: 40

Polyrhachis biroi Ford; CHAPMAN & CAPCO, 1951: 269 [wrong author]

***Polyrhachis biroi atra* VIEHMEYER**

Polyrhachis biroi var. *atra* VIEHMEYER, 1914c: 50

***Polyrhachis biroi bidentata* STITZ**

Polyrhachis biroi var. *bidentata* STITZ, 1912: 512

***Polyrhachis biroi paprika* FOREL**

Polyrhachis biroi var. *paprika* FOREL, 1911b: 296

***Polyrhachis braxa* BOLTON**

Polyrhachis braxa BOLTON, 1973b: 333

***Polyrhachis carbonaria* SMITH
[subgen. comb. n.]**

Polyrhachis carbonarius SMITH, 1857: 60

Polyrhachis (Aulacomyrma) carbonaria SMITH; DONISTHORPE, 1932b: 445]

Polyrhachis (Cyrtomyrma) carbonaria SMITH; CHAPMAN & CAPCO, 1951: 263

***Polyrhachis carinata* (FABRICIUS)**

Formica carinata FABRICIUS, 1804: 413

Polyrhachis carinatus (FABRICIUS); MAYR, 1863a: 444

***Polyrhachis ceramensis* MAYR**

Polyrhachis ceramensis MAYR, 1883: 246

***Polyrhachis compressicornis* SMITH**

Polyrhachis compressicornis SMITH, 1860a: 69

***Polyrhachis concava* ANDRÉ**

Polyrhachis concava ANDRÉ, 1889: 218

***Polyrhachis conops conops* FOREL**

Polyrhachis conops FOREL, 1901b: 28

***Polyrhachis conops cuspidata* STITZ**

Polyrhachis conops var. *cuspidata* STITZ, 1911: 376

***Polyrhachis conops simpla* SANTSCHI**

Polyrhachis conops st. *simplex* KARAWAJEW, 1927: 45 [junior homonym of *P. simplex* MAYR, 1862: 682]

Polyrhachis conops st. *simpla* SANTSCHI, 1928a: 139 [replacement name for *P. conops* st. *simplex* KARAWAJEW]

***Polyrhachis conops spinifera* STITZ**

Polyrhachis conops var. *spinifera* STITZ, 1911: 376

Polyrhachis conops var. *spinifer* STITZ; CHAPMAN & CAPCO, 1951: 270 [misspelling]

***Polyrhachis conops stitzi* SANTSCHI**

Polyrhachis conops var. *bismarckensis* KARAWAJEW, 1927: 46 [junior homonym of *P. mucronata bismarckensis* FOREL, 1901b: 33]

Polyrhachis conops var. *stitzi* SANTSCHI, 1928a: 139 [replacement name for *P. bismarckensis* KARAWAJEW]

***Polyrhachis continua continua* EMERY**

Polyrhachis continua EMERY, 1887a: 235

***Polyrhachis continua hirsutula* EMERY**

Polyrhachis continua var. *hirsutula* EMERY, 1911: 256

***Polyrhachis continua procera* EMERY**

Polyrhachis continua var. *procera* EMERY, 1897a: 581

***Polyrhachis continua revocata* VIEHMEYER**

Polyrhachis continua var. *revocata* VIEHMEYER, 1913: 151 [fossil]

***Polyrhachis convexa convexa* ROGER**

Polyrhachis convexa ROGER, 1863: 153

Polyrhachis convexa ROGER; CHAPMAN & CAPCO, 1951: 270 [misspelling]

***Polyrhachis convexa isabellae* FOREL**

Polyrhachis convexa var. *isabellae* FOREL, 1908: 9

***Polyrhachis cornuta* STITZ**

Polyrhachis cornuta STITZ, 1910: 150

***Polyrhachis crassispinosa* VIEHMEYER**

Polyrhachis crassispinosa VIEHMEYER, 1914c: 49

Polyrhachis crassispina VIEHMEYER; CHAPMAN & CAPCO, 1951: 270 [misspelling]

***Polyrhachis cubaensis* MAYR**

Polyrhachis cubaensis MAYR, 1862: 686

Polyrhachis gerstaeckeri FOREL, 1886b: 197 [synonymy by BOLTON, 1973b: 325]

Polyrhachis cubaensis var. *gerstaeckeri* FOREL; MAYR, 1893: 4

Polyrhachis cubaensis var. *striolato-rugosa* MAYR, 1893: 195 [incorrect original spelling]

Polyrhachis cubaensis var. *striolatorugosa* MAYR, 1893: 195 [synonymy by BOLTON, 1973b: 325]

Polyrhachis gerstaeckeri FOREL; FOREL, 1894b: 72 [misspelling]

Polyrhachis cubaensis var. *gerstaeckeri* FOREL; FOREL, 1894b: 72 [misspelling]

Polyrhachis cubaensis wilmsi FOREL, 1910c: 30 [synonymy by BOLTON, 1973b: 325]

Polyrhachis cubaensis var. *gerstaeckeri* FOREL; FOREL, 1913c: 358 [misspelling]

***Polyrhachis curta* ANDRÉ**

Polyrhachis curta ANDRÉ, 1890: 312

Polyrhachis maynei FOREL, 1911e: 282 [synonymy by BOLTON, 1973b: 346]

Polyrhachis (*Pseudocyrtonomyrma*) *curta* ANDRÉ; EMERY, 1925: 206

Polyrhachis (*Pseudocyrtonomyrma*) *lyrifera* STITZ, 1933: 78 [synonymy by BOLTON, 1973b: 346]

Polyrhachis curta var. *lyrifera* STITZ; SANTSCHI, 1939: 13

***Polyrhachis cyaniventris* SMITH**

Polyrhachis cyaniventris SMITH, 1858: 70

Polyrhachis cyaneus MAYR, 1862: 684 [synonymy by DALLA TORRE, 1893: 261]

Polyrhachis cyaneiventris SMITH; DALLA TORRE, 1893: 261 [misspelling]

Polyrhachis cyaniventris DRURY; BROWN, 1906: 690 [wrong author and misspelling]

***Polyrhachis decellei* BOLTON**

Polyrhachis decellei BOLTON, 1973b: 301

***Polyrhachis decemdentata* ANDRÉ**

Polyrhachis decemdentata ANDRÉ, 1889: 219

Polyrhachis decemdentata var. *fernandensis* FOREL, 1901d: 377 [synonymy by BOLTON, 1973b: 302]

Polyrhachis decemdentata var. *flavipes* STITZ, 1910: 149 [synonymy by BOLTON, 1973b: 302]

Polyrhachis decemdentata var. *gustavi* EMERY, 1921a: 22 [synonymy by BOLTON, 1973b: 302]

Polyrhachis decemdentata var. *fernandensis* FOREL; SANTSCHI, 1923: 294 [misspelling]

Polyrhachis decemdentata tenuistriata MENOZZI, 1932b: 114 [synonymy by BOLTON, 1973b: 302]

***Polyrhachis diana* WHEELER**

Polyrhachis diana WHEELER, 1909: 343

***Polyrhachis dorsorugosa* FOREL**

Polyrhachis latona var. *dorsorugosa* FOREL, 1913a: 202

Polyrhachis latona var. *dorsiruga* FOREL; WHEELER, 1929a: 63; HUNG, 1962: 27 [misspelling]

Polyrhachis dorsorugosa FOREL; WANG & WU, 1991: 599

***Polyrhachis durbanensis* FOREL**

Polyrhachis cubaensis r. *durbanensis* FOREL, 1914a: 262

Polyrhachis durbanensis FOREL; BOLTON, 1973b: 327

***Polyrhachis fissa* MAYR**

Polyrhachis fissus MAYR, 1902: 301

Polyrhachis bequaerti WHEELER, 1922: 267 [synonymy by BOLTON, 1973b: 304]

Polyrhachis fissa ugandensis ARNOLD, 1954: 294 [synonymy by BOLTON, 1973b: 304]

***Polyrhachis foreli* KOHOUT**

Polyrhachis relucens st. *andromache* var. *andromeda* FOREL, 1915a: 110 [name not available]

Polyrhachis ithona SMITH, 1860: 99 partim [sensu TAYLOR, 1987: 60]

Polyrhachis foreli KOHOUT, 1989: 510 [replacement name for *P. relucens* r. *andromache* var. *andromeda* FOREL]

***Polyrhachis gagates* SMITH**

Polyrhachis gagates SMITH, 1858: 71

Polyrhachis gagates var. *congolensis* SANTSCHI, 1910a: 399 [synonymy by BOLTON, 1973b: 305]

Polyrhachis nigriseta SANTSCHI, 1910a: 399 [synonymy by BOLTON, 1973b: 305]

Polyrhachis nigriseta var. *clariseta* SANTSCHI, 1910a: 400 [synonymy by BOLTON, 1973b: 305]

Polyrhachis gagates r. *indefinita* FOREL, 1913e: 349 [synonymy by SANTSCHI, 1924a: 224 with *P. gagates* var. *congolensis* SANTSCHI; synonymy by BOLTON, 1973b: 305]

Polyrhachis schistacea r. *nigriseta* var. *clariseta* SANTSCHI; FOREL, 1913e: 357 [name not available]

Polyrhachis gagates obsidiana EMERY, 1921a: 21 [synonymy by BOLTON, 1973b: 305]

Polyrhachis gagates indefinita var. *acheron* ARNOLD, 1924: 746 [name not available]

***Polyrhachis gamaii* SANTSCHI**

Polyrhachis gamaii SANTSCHI, 1917: 295

Polyrhachis gamaii SANTSCHI; MAJER & KOCK, 1992: 34 [misspelling]

***Polyrhachis hastata* (LATREILLE)**

Formica hastata LATREILLE, 1804: 129

Formica hastata LATREILLE; JERDON, 1851: 126 [misspelling]

Polyrhachis hastatus (LATREILLE); SMITH, 1858: 59

***Polyrhachis hemiopticoides* MUKERJEE**

Polyrhachis hemiopticoides MUKERJEE, 1930: 161

***Polyrhachis horni* EMERY**

Polyrhachis horni EMERY, 1901a: 122

***Polyrhachis illaudata illaudata* WALKER**

Polyrhachis illaudatus WALKER, 1859: 373

Polyrhachis relucens MAYR, 1862: 37 [junior homonym of *P. relucens* (LATREILLE, 1802: 131)]

Polyrhachis mayrii ROGER, 1863: 7 [replacement name for *P. relucens* MAYR; synonymy by DONISTHORPE, 1932a: 576]

Polyrhachis mayrei ROGER; FOREL, 1886a: 242 [misspelling]

Polyrhachis mayrii ROGER; EMERY, 1895a: 481 [misspelling]

- Polyrhachis latispinosa* DONISTHORPE, 1942b:
460 [synonymy by BOLTON, 1974: 176]
Polyrhachis duodentata DONISTHORPE, 1942b:
461 [synonymy by BOLTON, 1974: 176]

***Polyrhachis illaudata intermedia* FOREL**

- Polyrhachis mayrei intermedia* FOREL, 1886a:
242 [incorrect original spelling]
Polyrhachis mayri r. intermedia FOREL; FOREL,
1893a: 20 + 29 [emendation]
Polyrhachis intermedia FOREL; DALLA TORRE,
1893: 264
Polyrhachis mayri intermedia FOREL; EMERY,
1925: 201

***Polyrhachis illaudata obesior* VIEHMEYER**

- Polyrhachis mayri* var. *obesior* VIEHMEYER,
1916a: 165

***Polyrhachis illaudata pauperata* EMERY**

- Polyrhachis mayri* var. *pauperata* EMERY, 1889:
519

***Polyrhachis illaudata proximomayri* FOREL**

- Polyrhachis mayri* var. *proximo-mayri* FOREL,
1893a: 20 + 29 [incorrect original spelling]

***Polyrhachis indificans* (JERDON)
[subgen. comb. n.]**

- Formica indificans* JERDON, 1851: 125
Polyrhachis nidificans (JERDON); SMITH, 1858:
59 [misspelling]
Polyrhachis (Myrmhopla) nidificans (JERDON);
EMERY, 1925: 197

***Polyrhachis inermis* SMITH**

- Polyrhachis inermis* SMITH, 1858: 68
Polyrhachis orsyllus SMITH, 1861: 39 partim
[sensu EMERY, 1900b: 713]
Polyrhachis (Myrma) bryanti DONISTHORPE,
1942c: 707 [synonymy by BOLTON, 1974: 176]
Polyrhachis (Myrma) hosei DONISTHORPE,
1942c: 708 [synonymy by BOLTON, 1974: 176]

***Polyrhachis inusitata* KOHOUT**

- Polyrhachis inusitata* KOHOUT, 1989: 513

***Polyrhachis isacantha* EMERY**

- Polyrhachis isacantha* EMERY, 1887a: 232

***Polyrhachis ithona* SMITH**

- Polyrhachis ithonus* SMITH, 1860b: 99
Polyrhachis relucens var. *ithonus* SMITH; MAYR,
1879: 655
Polyrhachis relucens ithonus var. *sylvatica* SANT-
SCHI, 1932: 21 [name not available]
Polyrhachis reluscens var. *ithonus* DALLA TOR-
RE; DONISTHORPE, 1932b: 460 [misspelling
and wrong author]
Polyrhachis reluscens ithonius SMITH; DONIS-
THORPE, 1943c: 471 [misspelling]
Polyrhachis ithona SMITH; BOLTON, 1974: 177

***Polyrhachis khepra* BOLTON**

- Polyrhachis khepra* BOLTON, 1973b: 334

***Polyrhachis labella labella* SMITH**

- Polyrhachis labella* SMITH, 1860b: 101

***Polyrhachis labella brunneipes* WHEELER**

- Polyrhachis labella* var. *brunneipes* WHEELER,
1934b: 179

***Polyrhachis labella obliqua* STITZ**

- Polyrhachis labella* var. *obliqua* STITZ, 1911:
375

***Polyrhachis laboriosa* SMITH**

- Polyrhachis laboriosus* SMITH, 1858: 72
Polyrhachis laboriosa var. *architecta* SANTSCHI,
1924a: 224 [synonymy by BOLTON, 1973b:
308]
Polyrhachis hortulana ARNOLD, 1955: 735 [syno-
nymy by BOLTON, 1973b: 308]

***Polyrhachis lanuginosa* SANTSCHI**

- Polyrhachis lanuginosa* SANTSCHI, 1910a: 394
Polyrhachis (Pseudocryptomyrma) lanuginosa
SANTSCHI; EMERY, 1921a: 18 + 24
Polyrhachis (Pseudocryptomyrma) lanuginosa
santschii EMERY, 1921a: 24 [junior homonym
of *P. santschi* MANN, 1919: 375]
Polyrhachis lanuginosa santschi EMERY; SANT-
SCHI, 1923: 293 [misspelling]
Polyrhachis lanuginosa conradti SANTSCHI,
1923: 293 [l. replacement name for *P. lanugi-
nosa santschii* EMERY; synonymy by
SANTSCHI, 1939: 13 with *P. lanuginosa* var.
felici EMERY, 1925: 206; synonymy by BOL-
TON, 1973b: 335]

Polyrhachis (*Pseudocyrtonyrmica*) *lanuginosa* *feiliei* EMERY, 1925: 206 [2. replacement name for *P. lanuginosa santschii* EMERY; synonymy by BOLTON, 1973b: 335]

Polyrhachis latharis BOLTON

Polyrhachis latharis BOLTON, 1973b: 348

Polyrhachis latispina EMERY

Polyrhachis atalanta WHEELER, 1922: 263 [junior homonym of *P. atalanta* EMERY, 1898b: 243]

Polyrhachis latispina EMERY, 1925: 206 [replacement name for *P. atalanta* WHEELER]
Polyrhachis iperpunctata MENOZZI, 1942: 181 [synonymy by BOLTON, 1973b: 310]

Polyrhachis iperstriata MENOZZI; Eidmann, 1944: 481 + 483 [misspelling for *P. iperpunctata* MENOZZI]

Polyrhachis latona WHEELER

Polyrhachis latona WHEELER, 1909: 337

Polyrhachis lauta SANTSCHI

Polyrhachis lauta SANTSCHI, 1910a: 397
Polyrhachis lauta var. *localis* FOREL, 1913e: 359 [synonymy by BOLTON, 1973b: 311]
Polyrhachis lauta var. *laeta* EMERY, 1921a: 22 [synonymy by BOLTON, 1973b: 311]

Polyrhachis lestoni BOLTON

Polyrhachis lestoni BOLTON, 1973b: 349

Polyrhachis limitis SANTSCHI

Polyrhachis alexisi st. *limitis* SANTSCHI, 1939: 12
Polyrhachis limitis SANTSCHI; BOLTON, 1973b: 350

Polyrhachis lycidas SMITH

Polyrhachis lycidas SMITH, 1861: 43
Polyrhachis lycides SMITH; CHAPMAN & CAPCO, 1951: 272 [misspelling]

Polyrhachis medusa FOREL

Polyrhachis schistacea r. *medusa* FOREL, 1897: 206
Polyrhachis medusa FOREL; FOREL, 1907e: 92
Polyrhachis medusae FOREL; SANTSCHI, 1914a: 140 [misspelling]

Polyrhachis militaris (FABRICIUS)

Formica militaris FABRICIUS, 1782: 493

Fourmi militaire; OLIVIER, 1792: 489 [misspelling]

Polyrhachis militaris (FABRICIUS); SMITH, 1858: 72

Polyrhachis militaris st. *cupreopubescens* FOREL, 1879: 120 [synonymy by BOLTON, 1973b: 313]

Polyrhachis militaris r. *striativentris* EMERY, 1892: 566 [synonymy by BOLTON, 1973b: 313]

Polyrhachis cupreopubescens FOREL; DALLA TORRE, 1893: 261

Polyrhachis striativentris EMERY; DALLA TORRE, 1893: 270

Polyrhachis militaris cupreopubescens var. *transversaria* FOREL, 1901a: 77 [name not available]

Polyrhachis militaris var. *calabarica* FOREL, 1907c: 38 [synonymy by BOLTON, 1973b: 313]

Polyrhachis militaris var. *ssibangensis* FOREL, 1907c: 38 [synonymy by BOLTON, 1973b: 313]

Polyrhachis militaris var. *sibangensis* FOREL; SANTSCHI, 1910a: 400; 1924: 222 [misspelling]

Polyrhachis militaris r. *cupreopubescens* var. *argentatus* STITZ, 1910: 150 [name not available and junior homonym of *P. argentata* (FABRICIUS, 1804: 413)]

Polyrhachis militaris st. *bruta* SANTSCHI, 1912: 166 [synonymy by BOLTON, 1973b: 313]

Polyrhachis militaris var. *stibangensis* FOREL; SANTSCHI, 1912: 167 [misspelling]

Polyrhachis militaris r. *cupreopubescens* var. *epinotalis* FOREL, 1913e: 357 [name not available]

Polyrhachis militaris r. *cupreopubescens* var. *sankisiana* FOREL, 1913f: 348 [name not available]

Polyrhachis militaris r. *cupreopubescens* var. *nkomoensis* FOREL, 1916a: 447 [name not available]

Polyrhachis militaris cupreopubescens var. *dido* WHEELER, 1922: 261 [replacement name for *P. militaris* r. *cupreopubescens* var. *argentatus* STITZ: name not available]

Polyrhachis militaris cupreopubescens var. *argentea* STITZ; SANTSCHI, 1924a: 222 [nomen nudum; probably misspelling for *P. militaris* r. *cupreopubescens* var. *argentatus* STITZ]

Polyrhachis militaris st. *epinotalis* SANTSCHI, 1924a: 222 [first available use of "epinotalis"; syn. n.]

Polyrhachis militaris cupreopubescens var. *pleurata* SANTSCHI, 1924a: 223 [name not available]

Polyrhachis militaris st. *bruta* var. *sankisiana*
FOREL; SANTSCHI, 1924a: 224 [name not available]

Polyrhachis militaris var. *nkomoensis* SANTSCHI, 1924a: 222 [first available use of "nkomoensis"; syn. n.]

Polyrhachis militaris var. *transversaria* SANTSCHI, 1924a: 222 [first available use of "transversaria"; syn. n.]

Polyrhachis militaris st. *cupreopubescens* var. *calabarica* FOREL; SANTSCHI, 1924a: 223 [name not available]

Polyrhachis calabarica FOREL; MEDLER, 1980: 486 [wrong state]

***Polyrhachis monista* SANTSCHI**

Polyrhachis monista SANTSCHI, 1910a: 398

***Polyrhachis murina murina* EMERY**

Polyrhachis murina EMERY, 1893a: 198

***Polyrhachis murina selecta* FOREL**

Polyrhachis murina selecta FOREL, 1911c: 215

***Polyrhachis niger* MAYR**

Polyrhachis niger MAYR, 1862: 683

Polyrhachis nigra MAYR; CHAPMAN & CAPCO, 1951: 273 [misspelling]

***Polyrhachis nigrita* MAYR**

Polyrhachis nigrita MAYR, 1895: 153

Polyrhachis schoutedeni SANTSCHI, 1919: 249 [synonymy by BOLTON, 1973b: 328]

***Polyrhachis nigropilosa nigropilosa* MAYR**

Polyrhachis nigropilosa MAYR, 1872: 141

***Polyrhachis nigropilosa conophthalma*
EMERY**

Polyrhachis nigropilosa var. *conophthalma* EMERY, 1900b: 713

***Polyrhachis nigropilosa polluta* MENOZZI**

Polyrhachis nigropilosa var. *polluta* MENOZZI, 1926: 99

***Polyrhachis numeria* SMITH**

Polyrhachis numeria SMITH, 1861: 42

***Polyrhachis olenia* SMITH**

Polyrhachis olenus SMITH, 1861: 39

Polyrhachis eurytus SMITH, 1861: 43 [synonymy by BOLTON, 1974: 177]

Polyrhachis eurythus SMITH; ROGER, 1863: 9 [misspelling]

***Polyrhachis otleti* FOREL**

Polyrhachis otleti FOREL, 1916a: 449

***Polyrhachis parabiatica* CHAPMAN
[subgen. comb. n.]**

Polyrhachis (Anoplomyrma) parabiatica CHAPMAN, 1963: 258

***Polyrhachis paracamponota* WANG & WU**

Polyrhachis paracamponota WANG & WU, 1991: 599 + 601

***Polyrhachis phidias* FOREL**

Polyrhachis phidias FOREL, 1910b: 450

***Polyrhachis philippinensis* SMITH**

Polyrhachis philippinensis SMITH, 1858: 69

***Polyrhachis platyomma* EMERY**

Polyrhachis (Pseudocryptomyrma) platyomma EMERY, 1921a: 24

Polyrhachis (Myrma) platyomma EMERY; BOLTON, 1973b: 288 [general subgeneric synonymy]

***Polyrhachis proxima proxima* ROGER**

Polyrhachis proxima ROGER, 1863: 155

***Polyrhachis proxima semirufipes*
DONISTHORPE**

Polyrhachis proxima var. *semirufipes* DONISTHORPE, 1943c: 469

***Polyrhachis pruinosa* MAYR**

Polyrhachis pruinosa MAYR, 1872: 142

Polyrhachis pubescens pubescens* MAYRPolyrhachis pubescens* MAYR, 1879: 657*Hemioptica pubescens* (MAYR); BINGHAM, 1903: 381*Polyrhachis* (*Myrma*) *pubescens* MAYR; EMERY, 1925: 205***Polyrhachis pubescens alatisquamis* FOREL***Polyrhachis pubescens* var. *alatisquamis* FOREL, 1893a: 17*Polyrhachis* (*Myrma*) *pubescens* var. *alatisquamis* FOREL; EMERY, 1925: 205***Polyrhachis punctillata punctillata* ROGER***Polyrhachis punctillata* ROGER, 1863: 152***Polyrhachis punctillata fergusonii* FOREL***Polyrhachis punctillata* r. *fergusonii* FOREL, 1902a: 289***Polyrhachis punctillata smythiesii* FOREL***Polyrhachis punctillata* r. *smythiesii* FOREL, 1895a: 456*Polyrhachis punctillata* var. *smythiesii* FOREL; BINGHAM, 1903: 409; CHAPMAN & CAPCO, 1951: 275 [misspelling]***Polyrhachis pyrgops* VIEHMEYER***Polyrhachis pyrgops* VIEHMEYER, 1912: 9***Polyrhachis regesa* BOLTON***Polyrhachis regesa* BOLTON, 1973b: 337***Polyrhachis relucens relucens* (LATREILLE)***Formica relucens* LATREILLE, 1802: 131*Polyrhachis relucens* (LATREILLE); SMITH, 1857: 59***Polyrhachis relucens breviorispinosa*
DONISTHORPE***Polyrhachis relucens* var. *breviorispinosa* DONISTHORPE, 1947b: 194***Polyrhachis relucens decipiens* ROGER***Polyrhachis decipiens* ROGER, 1863: 156*Polyrhachis relucens decipiens* ROGER; EMERY, 1897a: 580*Polyrhachis relucens decipiens* var. *papua* EMERY, 1897a: 580 [name not available]***Polyrhachis relucens litigiosa* EMERY***Polyrhachis relucens litigiosa* EMERY, 1897a: 581*Polyrhachis litigiosa* EMERY; DAHL, 1901: 37 + 42 + unnumbered pages with tables between page 22 and 23 [wrong state]*Polyrhachis relucens* r. *litigiosa* var. *aloseana* FOREL, 1901b: 28 [name not available]*Polyrhachis relucens* r. *litigiosa* var. *fusca* STITZ, 1911: 375 [name not available]***Polyrhachis restituta restituta* VIEHMEYER***Polyrhachis restituta* VIEHMEYER, 1913: 149 [fossil]***Polyrhachis restituta conclusa* VIEHMEYER***Polyrhachis restituta* var. *conclusa* VIEHMEYER, 1913: 151 [fossil]***Polyrhachis revoili* ANDRÉ***Polyrhachis revoili* ANDRÉ, 1887: 285*Polyrhachis revoili* ANDRÉ; DALLA TORRE, 1893: 268 [incorrect subsequent spelling]*Polyrhachis natalensis* SANTSCHI, 1914b: 41 [synonymy by ARNOLD, 1924: 754; syn. rest. by BOLTON, 1973: 338]*Polyrhachis* (*Myrma*) *revoili* var. *natalensis* SANTSCHI; FOREL, 1916a: 453*Polyrhachis revoili* var. *donisthorpei* FOREL, 1917: 252 [synonymy by BOLTON, 1973b: 338]*Polyrhachis* (*Pseudocryptomyrma*) *revoili* ANDRÉ; EMERY, 1925: 207*Polyrhachis* (*Pseudocryptomyrma*) *revoili* var. *natalensis* SANTSCHI; EMERY, 1925: 207***Polyrhachis rixosa* SMITH***Polyrhachis rixosus* SMITH, 1858: 68***Polyrhachis rufipalpis* SANTSCHI***Polyrhachis rufipalpis* SANTSCHI, 1910a: 396*Polyrhachis rufipalpis* r. *mayumbensis* FOREL, 1913e: 358 [synonymy by BOLTON, 1973b: 317]***Polyrhachis rufofemorata* SMITH***Polyrhachis rufofemoratus* SMITH, 1859: 142

Polyrhachis merops SMITH, 1860b: 98 [nec MAYR, 1867: 53; synonymy by BOLTON, 1974: 178]

Polyrhachis rufofemorata var. *merops* SMITH; EMERY, 1898a: 228

Polyrhachis rufofemorata var. *semirufofemorata* [nomen nudum HUNG, 1967a: 415]

***Polyrhachis salomo salomo* FOREL**

Polyrhachis salomo FOREL, 1910c: 87

Polyrhachis solamo FOREL; CHAPMAN & CAPCO, 1951: 276 [misspelling]

***Polyrhachis salomo hiram* FOREL**

Polyrhachis salomo hiram FOREL, 1912b: 80

***Polyrhachis schistacea* (GERSTAECKER)**

Polyrhachis carinatus SMITH, 1857: 59 [junior homonym of *P. carinata* (FABRICIUS, 1804: 413); synonymy by DALLA TORRE, 1893: 260 with *P. cafrorum* FOREL, 1879: 120; synonymy by EMERY, 1925: 200 with *P. schistacea* var. *rugulosa* MAYR, 1862: 685]

Hopomyrmus schistaceus GERSTAECKER, 1859: 262

Polyrhachis rugulosus MAYR, 1862: 685 [synonymy by BOLTON, 1973b: 318]

Polyrhachis schistazeus (GERSTAECKER); GERSTAECKER in PETERS, 1862: 508; MAYR, 1863a: 446 [misspelling]

Hopomyrmus schistazeus GERSTAECKER; GERSTAECKER, 1873: 342 [misspelling]

Polyrhachis schistazea (GERSTAECKER); GERSTAECKER, 1873: 342 [misspelling]

Polyrhachis militaris st. *cafrorum* FOREL, 1879: 120 [synonymy by FOREL, 1894b: 72 with *P. rugulosa* MAYR]

Polyrhachis militaris var. *schistacea* (GERSTAECKER); ANDRÉ, 1887: 288

Polyrhachis cafrorum FOREL; EMERY, 1892: 566 [misspelling]

Polyrhachis cafrorum FOREL; DALLA TORRE, 1893: 260

Polyrhachis militaris var. *rugulosa* MAYR; MAYR, 1893: 5

Polyrhachis schistacea r. *rugulosa* MAYR; STITZ, 1910: 151

Polyrhachis schistacea var. *divina* FOREL, 1913f: 348 [synonymy by BOLTON, 1973b: 318]

Polyrhachis schistacea var. *rugulosa* var. *divinoides* FOREL, 1913f: 348 [name not available]

Polyrhachis schistacea st. *atrociliata* SANTSCHI, 1914a: 141 [synonymy by BOLTON, 1973b: 318]

Polyrhachis schistacea st. *fracta ocliliata* var. *benguelensis* SANTSCHI, 1914a: 141 [name not available]

Polyrhachis schistacea st. *fracta* SANTSCHI, 1914a: 141 [synonymy by BOLTON, 1973b: 318]

Polyrhachis schistacea st. *fracta* var. *subplana* SANTSCHI, 1914a: 142 [name not available]

Polyrhachis schistacea var. *gagatoides* SANTSCHI, 1914a: 142 [synonymy by BOLTON, 1973b: 318]

Polyrhachis schistacea atrociliata var. *mediopilosa* SANTSCHI, 1923: 295 [name not available]

Polyrhachis schistacea var. *divinoides* EMERY, 1925: 200 [first available use of "divinoides"]

Polyrhachis schistacea var. *divinoides* FOREL; EMERY, 1925: 200 [wrong author. synonymy by BOLTON, 1973b: 318]

***Polyrhachis schlueteri* FOREL**

Polyrhachis militaris r. *schlueteri* FOREL, 1886b: 195

Polyrhachis schistacea r. *schlueteri* FOREL; FOREL, 1894b: 72 [misspelling]

Polyrhachis schlueteri FOREL; FOREL, 1907e: 92

Polyrhachis schistacea st. *schlueteri* FOREL; SANTSCHI, 1914b: 42 [misspelling]

Polyrhachis schlueteri var. *plebeia* SANTSCHI, 1914a: 143 [incorrect original spelling; synonymy by BOLTON, 1973b: 321]

Polyrhachis schlueteri var. *indigens* FOREL, 1914a: 261 [incorrect original spelling; synonymy by ARNOLD, 1924: 747 with *P. schistacea* r. *schlueteri* FOREL]

Polyrhachis schlutteri FOREL; FOREL, 1915c: 364 [misspelling]

Polyrhachis schlutteri FOREL; EMERY, 1925: 200 [misspelling]

***Polyrhachis sculpturata sculpturata* SMITH**

Polyrhachis sculpturatus SMITH, 1860a: 70

***Polyrhachis sculpturata javaniana* SANTSCHI**

Polyrhachis sculpturata r. *javana* STITZ, 1923: 134 [junior homonym of *P. rastellata javana* VIEHMEYER, 1914c: 51]

Polyrhachis sculpturata st. *javaniana* SANTSCHI, 1928a: 134 [replacement name for *P. sculpturata* r. *javana* STITZ]

***Polyrhachis sculpturata siamensis* MAYR**

Polyrhachis sculpturata var. *siamensis* MAYR,
1879: 657

***Polyrhachis sericata sericata*
(GUÉRIN-MÉNEVILLE)**

Formica sericata GUÉRIN-MÉNEVILLE, 1831: 203
Formica grisea Le Guillou, 1842: 314 [synonymy
by DALLA TORRE, 1893: 269]

Polyrhachis sericatus (GUÉRIN-MÉNEVILLE);
SMITH, 1857: 200

Polyrhachis griseus (Le GUILLOU); MAYR,
1863a: 444

Polyrhachis sericata LATREILLE; STITZ, 1911:
375 [wrong author]

***Polyrhachis sericata glabra* FOREL**

Polyrhachis sericata glabra FOREL, 1911b: 295

***Polyrhachis sericata nitidissima*
KARAWAJEW**

Polyrhachis sericata var. *nitidissima* KARAWA-
JEW, 1927: 48

***Polyrhachis sericata nitidiventris* STITZ**

Polyrhachis sericata var. *nitidiventris* STITZ,
1911: 375

***Polyrhachis sericata pruinosa* SANTSCHI**

Polyrhachis sericata pruinosa KARAWAJEW,
1927: 48 [junior homonym of *P. pruinosa*
MAYR, 1872: 142]

Polyrhachis sericata st. *pruinosa* SANTSCHI,
1928a: 139 [replacement name for *P. sericata*
pruinosa KARAWAJEW]

Polyrhachis sericata pruinosa var. *harnsi* KA-
RAWAJEW, 1930: 212 [name not available]

***Polyrhachis sericeopubescentis*
DONISTHORPE**

Polyrhachis sericeopubescentis DONISTHORPE,
1941b: 61

***Polyrhachis similis similis* VIEHMEYER**

Polyrhachis similis VIEHMEYER, 1912: 8

***Polyrhachis similis angustior* VIEHMEYER**

Polyrhachis similis var. *angustior* VIEHMEYER,
1912: 8

***Polyrhachis spinicola* FOREL**

Polyrhachis spinicola FOREL, 1894b: 70

Polyrhachis cubaensis r. *gallicola* FOREL, 1894b:
71 [synonymy by BOLTON, 1973b: 329]

***Polyrhachis spittleri* FOREL**

Polyrhachis (*Pseudocryptomyrma*) *spittleri* FO-
REL, 1916a: 450

Polyrhachis (*Myrma*) *spittleri* FOREL; BOLTON,
1973b: 288 [general subgeneric synonymy]

***Polyrhachis striata striata* MAYR**

Polyrhachis striatus MAYR, 1862: 686

***Polyrhachis striata assamensis* FOREL**

Polyrhachis striata r. *assamensis* FOREL, 1902a:
289

***Polyrhachis striata tritschleri* FOREL**

Polyrhachis *Polyrhachis*" *striata* r. *tritschleri* FO-
REL, 1912c: 111

***Polyrhachis subpilosa* EMERY**

Polyrhachis subpilosa EMERY, 1895a: 480

Polyrhachis punctillata var. *subpilosa* EMERY;
BINGHAM, 1903: 410

Polyrhachis subpilosa EMERY; EMERY, 1925: 204

***Polyrhachis sulcata* ANDRÉ**

Polyrhachis sulcata ANDRÉ, 1895: 1

***Polyrhachis sumatrensis*
sumatrensis SMITH**

Polyrhachis sumatrensis SMITH, 1858: 65

***Polyrhachis sumatrensis*
exophthalma FOREL**

Polyrhachis striatorugosa var. *exophthalma* FO-
REL, 1913g: 136

Polyrhachis sumatrensis striatorugosa var. *exo-*
phthalma FOREL; CHAPMAN & CAPCO, 1951:
278 [name not available]

Polyrhachis sumatrensis hamulata* EMERYPolyrhachis sumatrensis* f. *hamulata* EMERY, 1887a: 234*Polyrhachis hamulata* EMERY, DALLA TORRE, 1893: 263; BINGHAM, 1903: 406*Polyrhachis sumatrensis hamulata* EMERY, EMERY, 1925: 203***Polyrhachis sumatrensis striatorugosa* MAYR***Polyrhachis striatorugosus* MAYR, 1862: 686*Polyrhachis striato-rugosa* MAYR; ROGER, 1863: 7; FOREL, 1879: 117; FOREL, 1893a: 29 [misspelling]*Polyrhachis sumatrensis* f. *striato-rugosa* MAYR; EMERY, 1887a: 234 [misspelling]*Polyrhachis sumatrensis* st. *striatorugosus* MAYR; EMERY, 1887a: 234***Polyrhachis transiens* BOLTON***Polyrhachis transiens* BOLTON, 1973b: 340***Polyrhachis tyrannica* SMITH***Polyrhachis tyrannicus* SMITH, 1858: 69***Polyrhachis vestita vestita* SMITH***Polyrhachis vestitus* SMITH, 1860a: 71***Polyrhachis vestita unicolor* EMERY***Polyrhachis vestita* var. *unicolor* EMERY, 1898b: 242*Polyrhachis merops* MAYR, 1867: 53 [nec SMITH, 1860b: 98; synonymy by EMERY, 1898b: 242]***Polyrhachis vigilans* SMITH***Polyrhachis vigilans* SMITH, 1858: 69***Polyrhachis villipes villipes* SMITH***Polyrhachis villipes* SMITH, 1857: 61***Polyrhachis villipes noesaensis* FOREL***Polyrhachis villipes* var. *noesaensis* FOREL, 1915b: 43***Polyrhachis vindex vindex* SMITH***Polyrhachis vindex* SMITH, 1857: 64*Polyrhachis orsyllus* SMITH, 1861: 39 [synonymy by WHEELER, 1924: 254; stat. rev. EMERY, 1925: 204; syn. rev.]***Polyrhachis vindex dentulata* STITZ
[comb. n.]***Polyrhachis orsyllus* var. *dentulata* STITZ, 1923: 135***Polyrhachis vindex javanensis* SANTSCHI
[comb. n.]***Polyrhachis orsyllus* var. *javana* KARAWAJEW, 1927: 49 [junior primary homonym of *P. rastellata javana* VIEHMEYER, 1914c: 51]*Polyrhachis orsyllus* var. *javanensis* SANTSCHI, 1928a: 140 [replacement name for *P. orsyllus* var. *javana* KARAWAJEW]***Polyrhachis vindex musculus* FOREL
[comb. n.]***Polyrhachis orsyllus* f. *musculus* FOREL, 1901b: 29***Polyrhachis vindex ritsemai* MAYR
[comb. n.]***Polyrhachis ritsemai* MAYR, 1883: 245*Polyrhachis orsyllus* f. *ritsemai* MAYR; FOREL, 1886b: 197*Polyrhachis ritzeae* MAYR; DALLA TORRE, 1893: 268 [misspelling]*Polyrhachis orsyllus ritzeai* MAYR; EMERY, 1925: 204; CHAPMAN & CAPCO, 1951: 274 [misspelling]***Polyrhachis vindex subcarinata* EMERY
[comb. n.]***Polyrhachis orsyllus subcarinata* EMERY, 1900b: 712***Polyrhachis viscosa* SMITH***Polyrhachis viscosus* SMITH, 1858: 71*Polyrhachis antinorii* EMERY, 1877: 365 [synonymy by DALLA TORRE, 1893: 271]*Polyrhachis viscosa* var. *spretula* SANTSCHI, 1923: 294 [synonymy by BOLTON, 1973b: 330]
Polyrhachis cubaensis imatongica WEBER, 1943: 388 [synonymy by BOLTON, 1973b: 330]

***Polyrhachis volkarti* FOREL**

- Polyrhachis* (*Myrma*) *revoili* r. *volkarti* FOREL, 1916a: 453
Polyrhachis (*Cyrtomyrma*) *kohli* FOREL, 1916a: 454 [synonymy by BOLTON, 1973b: 341]
Polyrhachis (*Pseudocyrtomyrma*) *kohli* FOREL; EMERY, 1921a: 18
Polyrhachis (*Pseudocyrtomyrma*) *revoili volkarti* FOREL; EMERY, 1921a: 18
Polyrhachis (*Myrma*) *volkarti* FOREL; BOLTON, 1973b: 341

***Polyrhachis weissi* SANTSCHI**

- Polyrhachis revoili* st. *weissi* SANTSCHI, 1910a: 395
Polyrhachis revoili var. *conduensis* FOREL, 1915c: 351 [synonymy by BOLTON, 1973b: 342]
Polyrhachis (*Pseudocyrtomyrma*) *weissi* SANTSCHI; EMERY, 1921a: 18
Polyrhachis (*Pseudocyrtomyrma*) *revoili* var. *crassa* EMERY, 1921a: 23 [synonymy by BOLTON, 1973b: 342]
Polyrhachis (*Pseudocyrtomyrma*) *revoili crassa* var. *phaenogaster* EMERY, 1921a: 24 [name not available]
Polyrhachis revoili balli SANTSCHI, 1939: 10 [synonymy by BOLTON, 1973b: 342]
Polyrhachis revoili var. *phaenogaster* EMERY; SANTSCHI, 1939: 12

***Polyrhachis wellmani* FOREL**

- Polyrhachis wellmani* FOREL, 1909a: 68

***Polyrhachis wolffi* FOREL**

- Polyrhachis wolffi* FOREL, 1912b: 79

***Polyrhachis yerburyi* FOREL**

- Polyrhachis yerburyi* FOREL, 1893a: 29

***Polyrhachis zopyra zopyra* SMITH**

- Polyrhachis zopyrus* SMITH, 1861: 43
Polyrhachis aurichalceus MAYR, 1862: 684 [synonymy by EMERY, 1925: 204]
Polyrhachis moorei DONISTHORPE, 1941c: 208 [synonymy by BOLTON, 1974: 179]

***Polyrhachis zopyra edentula* EMERY**

- Polyrhachis zopyrus* var. *edentula* EMERY, 1900b: 712

***Polyrhachis zopyra imbellis* EMERY**

- Polyrhachis imbellis* EMERY, 1887a: 224
Polyrhachis zopyrus var. *imbellis* EMERY; EMERY, 1925: 204

Subgenus *Myrmatopa* FOREL [fig. 10]

- Polyrhachis* (*Myrmatopa*) FOREL, 1915a: 107.
 Type-species: *Polyrhachis schang* FOREL, 1879: 123 by original designation.
Polyrhachis (*Campomyrma*) partim [sensu VIEHMAYER, 1916a: 163]
Dolichoderus (*Ireneae*) DONISTHORPE, 1938c: 502. Type-species: *Dolichoderus* (*Ireneae*) *omyrmex* DONISTHORPE, 1938c: 502, by original designation. [synonymy by BROWN, 1973: 181 with *Polyrhachis*]
Ireneae DONISTHORPE, 1938c: 502; CHAPMAN & CAPCO, 1951: 186 [probably erroneously raised to genus; synonymy by BROWN, 1973: 181 with *Polyrhachis*]
Polyrhachis (*Myrma*) partim [sensu DONISTHORPE, 1943a: 173]
Polyrhachis (*Cyrtomyrma*) partim [sensu CHAPMAN & CAPCO, 1951: 265 + 266]

WHEELER (1911) had transferred EMERY'S (1896) whole "cohors Polyrhachides camponotiformes" to *Campomyrma*. In 1915 FOREL created the subgenus *Myrmatopa* for the group "*Wallacei* EM. Schang FOR. etc." But EMERY (1896) had counted *P. wallacei* to "*manipulus P. clypeata*", while he listed *P. schang* under "species incertae sedis". None of these authors gave a description of the group or subgenus, resp. The first to fill this gap was EMERY (1925): "worker: pronotum not marginate in the *P. schang*-group, weakly marginate at the shoulders in the *P. wallacei*-group; pronotum unarmed or armed with teeth or very short spines; mesonotum and propodeum marginate; in the *P. schang*-group the borders of the propodeum are usually elevated in projecting angles; meso-propodeal furrow generally distinct; petiole armed with a single pair of spines, usually short and close together, rarely long, diverging and curved (*P. lombokensis*); first gaster segment relatively short, not covering more than half of the gaster; female; resembling the worker, but the thorax not marginate" (own translation).

The thorax is half to fully marginate, the genae are immarginate. They are large, slender arboreal weaver ants, which have a center of speciation in Indonesia.

The subgenus comprises 31 species. EMERY (1925) distinguished the *Polyrhachis schang*-group and the *Polyrhachis wallacei*-group (with *P. elii*, *P. fruhstorferi* and *P. wallacei*). Besides the description cited above, the two species-groups *P. wallacei* and *P. schang* have not been described in more detail.

Distribution: Australia, China, Indochina, Indonesia, Malaysia, New Guinea, Oceania, Philippines, Solomons, Singapore

List of species:

Polyrhachis alpeus alpeus SMITH

Polyrhachis alpeus SMITH, 1863: 14

Polyrhachis alpeus rufiventris EMERY

Polyrhachis alpeus var. *rufiventris* EMERY, 1911: 256

Polyrhachis antoniae STITZ

Polyrhachis antoniae STITZ, 1911: 372

Polyrhachis bouvieri SANTSCHI

Polyrhachis bouvieri SANTSCHI, 1928b: 250

Polyrhachis charaxa SMITH

Polyrhachis charaxa SMITH, 1860b: 98

Polyrhachis chartifex EMERY

Polyrhachis chartifex EMERY, 1900a: 334

Polyrhachis constructor SMITH

Polyrhachis constructor SMITH, 1857: 60

Polyrhachis derecyna SMITH

[subgen. comb. n.]

Polyrhachis dolomedes SMITH, 1863: 16 [junior homonym of *P. dolomedes* SMITH, 1863: 14]
Polyrhachis derecynus SMITH, 1871: 316 [1. replacement name for *P. dolomedes* SMITH, 1863: 16 nec. 14]

Polyrhachis pseudonyma FOREL, 1886a: 243 [2. replacement name for *P. dolomedes* SMITH; synonymy by DALLA TORRE, 1893: 261]

Polyrhachis pseudonyma FOREL; DALLA TORRE, 1893: 261 [misspelling]

Polyrhachis (Myrmatopa) taurus DONISTHORPE, 1937a: 274 [synonymy by BOLTON, 1974: 173]
Polyrhachis (Myrma) taurus DONISTHORPE; DONISTHORPE, 1943a: 173

Polyrhachis dolomedes SMITH

Polyrhachis dolomedes SMITH, 1863: 14

Polyrhachis edwardi DONISTHORPE

Polyrhachis edwardi DONISTHORPE, 1948a: 314
Polyrhachis edwardsi DONISTHORPE; DONISTHORPE, 1948b: 603 [misspelling]

Polyrhachis elii EMERY

Polyrhachis elii EMERY, 1900b: 711

Polyrhachis flavicornis SMITH

Polyrhachis flavicornis SMITH, 1857: 60

Polyrhachis fruhstorferi *fruhstorferi* EMERY

Polyrhachis fruhstorferi EMERY, 1898b: 238
Polyrhachis fruhstorferi EMERY; CHAPMAN & CAPCO, 1951: 280 [misspelling]
Polyrhachis fruhstorferi EMERY; CHAPMAN & CAPCO, 1951: 280 [misspelling]

Polyrhachis fruhstorferi torta SANTSCHI

Polyrhachis fruhstorferi var. *arcuata* KARAWAJEW, 1927: 9 [junior homonym of *P. arcuata* (LE GUILLON, 1842: 315)]
Polyrhachis fruhstorferi var. *torta* SANTSCHI, 1928a: 139 [replacement name for *P. fruhstorferi* var. *arcuata* KARAWAJEW]

Polyrhachis fruhstorferi varicolor VIEHMEYER [subgen. comb. n.]

Polyrhachis (Campomyrma) fruhstorferi varicolor VIEHMEYER, 1916a: 163

Polyrhachis furcula EMERY

Polyrhachis furcula EMERY, 1911: 537

Polyrhachis jacobsoni FOREL

Polyrhachis jacobsoni FOREL, 1909c: 230

Polyrhachis lilianae* FORELPolyrhachis lilianae* FOREL, 1911c: 213***Polyrhachis lombokensis* EMERY***Polyrhachis lombokensis* EMERY, 1898b: 239***Polyrhachis menozzii* KARAWAJEW***Polyrhachis menozzii* KARAWAJEW, 1927: 9
Polyrhachis menozzi KARAWAJEW, CHAPMAN & CAPCO, 1951: 281 [misspelling]***Polyrhachis omyrmex* (DONISTHORPE)***Dolichoderus (Ireneae) omyrmex* DONISTHORPE, 1938c: 502
Ireneae omyrmex (DONISTHORPE); CHAPMAN & CAPCO, 1951: 186 [generic synonymy by BROWN, 1973: 181]
Polyrhachis omyrmex DONISTHORPE; WILSON, 1971: 438; Hölldobler & WILSON, 1990: 164 [misspelling]***Polyrhachis osae* MANN***Polyrhachis osae* MANN, 1919: 384***Polyrhachis phalerata* MENOZZI***Polyrhachis phalerata* MENOZZI, 1926: 102***Polyrhachis piliventris* SMITH
[subgen. comb. n.]***Polyrhachis piliventris* SMITH, 1858: 60
Polyrhachis (Cyratomyrma) *piliventris* SMITH; CHAPMAN & CAPCO, 1951: 265***Polyrhachis rossi* DONISTHORPE***Polyrhachis rossi* DONISTHORPE, 1948a: 315***Polyrhachis ruficornis* SMITH
[subgen. comb. n.]***Polyrhachis ruficornis* SMITH, 1857: 60
Polyrhachis (Cyratomyrma) *ruficornis* SMITH; CHAPMAN & CAPCO, 1951: 266***Polyrhachis schang schang* FOREL***Polyrhachis schang* FOREL, 1879: 123
Polyrhachis gracilis EMERY, 1887a: 223 [synonymy by FOREL, 1909c: 232]
Polyrhachis sschang FOREL; WHEELER, 1930b: 77; Wu, 1941: 185 [misspelling]***Polyrhachis schang alata* FOREL***Polyrhachis gracilis* r. *alata* FOREL, 1904b: 177
Polyrhachis schang var. *alata* FOREL; EMERY, 1925: 181***Polyrhachis schang amboinae* SANTSCHI***Polyrhachis schang* var. *gracilior* KARAWAJEW, 1927: 11 [junior primary homonym of *P. gracilior* FOREL, 1893a: 25]
Polyrhachis schang var. *amboinae* SANTSCHI, 1928a: 139 [replacement name for *P. schang* var. *gracilior* KARAWAJEW]***Polyrhachis schang cnemidata* EMERY***Polyrhachis gracilis* var. *cnemidata* EMERY, 1900b: 710
Polyrhachis schang var. *cnemidata* EMERY; EMERY, 1925: 181***Polyrhachis schang excitata* VIEHMEYER***Polyrhachis excitata* VIEHMEYER, 1913: 147 [fossil]
Polyrhachis schang var. *excitata* VIEHMEYER; VIEHMEYER, 1914c: 48
Polyrhachis schang var. *excitata* VIEHMEYER; VIEHMEYER, 1914c: 25 [misspelling]***Polyrhachis schang laurae* MENOZZI***Polyrhachis schang* var. *laurae* MENOZZI, 1926: 9***Polyrhachis schang leviuscula* VIEHMEYER***Polyrhachis schang* var. *leviuscula* VIEHMEYER, 1916a: 164***Polyrhachis schang parvicella* FOREL***Polyrhachis schang* var. *parvicella* FOREL, 1911c: 214***Polyrhachis simillima* EMERY***Polyrhachis simillima* EMERY, 1900b: 711***Polyrhachis solivaga* MENOZZI***Polyrhachis solivaga* MENOZZI, 1926: 100***Polyrhachis solmsi solmsi* EMERY***Polyrhachis solmsi* EMERY, 1887a: 224

Polyrhachis solmsi multicella* FORELPolyrhachis solmsi* var. *multicella* FOREL, 1911c: 214***Polyrhachis subtridens* EMERY***Polyrhachis subtridens* EMERY, 1900b: 711***Polyrhachis ulysses* FOREL***Polyrhachis ulysses* FOREL, 1910c: 91***Polyrhachis wallacei wallacei* EMERY***Polyrhachis wallacei* EMERY, 1887a: 223***Polyrhachis wallacei wartburgi* FOREL***Polyrhachis wallacei* r. *wartburgi* FOREL, 1901a: 76*Polyrhachis wallacei wartburgi* FOREL, EMERY, 1925: 180 [misspelling]***Polyrhachis yarrabahensis* FOREL***Polyrhachis lombokensis* var. *yarrabahensis* FOREL, 1915a: 115*Polyrhachis yarrabahensis* FOREL, KOHOUT & TAYLOR, 1990: 520**Subgenus *Myrmhopla* FOREL
[figs. 11-29]***Polyrhachis (Myrmhopla)* FOREL, 1915a: 107.Type-species: *Formica armata* LE GUILLOU, 1842: 313, by original designation.*Polyrhachis (Chariomyrma)* FOREL partim [sensu FOREL, 1915a: 107; sensu EMERY, 1925: 186; sensu CHAPMAN & CAPCO, 1951: 262]*Polyrhachis (Aulacomyrma)* EMERY, 1921a: 17 partim [subgen. comb. n.]*Polyrhachis (Hedomyrma)* FOREL partim [sensu DONISTHORPE, 1932b: 446]*Polyrhachis (Cephalomyrma)* KARAWAJEW, 1935: 115. Type-species: *Polyrhachis kirkae* DONISTHORPE, 1937b: 624, by original designation. [synonymy by HUNG, 1967a: 402]*Polyrhachis (Florencea)* DONISTHORPE, 1937b: 624. Type-species: *Polyrhachis (Florencea) kirkae* DONISTHORPE, 1937b: 624, by original designation. [synonymy by HUNG, 1967a: 402]*Polyrhachis (Myrmoopla)*; SANTSCHI, 1937: 385 [misspelling]*Polyrhachis (Myrmahopla)*; WU, 1941: 185 [misspelling]*Polyrhachis (Myrmatopa)* FOREL partim [sensu CHAPMAN & CAPCO, 1951: 280]

WHEELER (1911) had transferred EMERY'S (1896) "cohors *Polyrhachides aciferæ*" to the subgenus *Hagiomyrma*. FOREL (1915) established the new subgenus *Myrmhopla* for EMERY'S (1896) "manipulus *P. armata*" of that "cohors". The first description of this subgenus was given by EMERY (1925): "worker: thorax not marginate, except in the species of the groups *cryptoceroides* and *viehmeveri*; pronotal spines shorter than those of the propodeum, sometimes are lacking; meso-propodeal suture variable; shape of petiole variable, in profile forming an elongated node, which is angled dorsally proximally or, on the contrary, shaped like a thick scale which is higher than long, angled or rounded proximally; the generally single pair of spines is varying very much in form, size and direction of the spines, rarely the spines are hook-like; when they are bent embracing the gaster, which is the case in many species, there is a pair of teeth or small vertical spines between them; first gastral segment large; female: very much resembling the worker, the spines usually stouter and shorter" (own translation).

Genae and thorax of the species are marginate or immarginate. Most species are weaver ants, nesting above the ground, many are arboreal. Centers of speciation are in the Indomalayan and Papuan region.

This subgenus is the largest of the genus *Polyrhachis*. It comprises 117 described species. Until today it is not clear, whether this is a monophyletic group or just the "storage bin" for those species with a rounded thorax which do not belong to the distinct subgenus *Cyrtomyrma*. Variable characters in *Myrmhopla* are: proportions of the body parts (head:thorax:gaster:legs:antennae), form of the thorax, proportions of the spination (prothorax:propodeum:petiole), spination and flattening of the hindtibiae, margination of the genae, amount of hairs and pubescence and ecological data as type of nest, type of domy, type of gyny. With the exception of the *P. cryptoceroides*-group, which seems highly adapted to a life in bark crevices and therefore resembles *Cataulacus*, the other species of *Myrmhopla* are relatively similar and differ mostly in proportions of characters instead of presence or absence of them. It seems that this group has experienced a rapid and strong speciation in recent times. In addition several characteristics as type of domy, type of gyny, mode of colony foundation, nutrition or type of habitat are only known for very few species. As evolved characteristics I accept construction of silk nests, polydomy, polygyny, loss of thorax margination, flattened scapes and tibiae. But

most of these characteristics, which can be used for creating subunits, may have evolved independently several times and the explanations of their functions are in most cases highly speculative. So the following grouping has to be understood as a first attempt after EMERY (1925) to create a more detailed subdivision of this difficult group. From morphological as well as from biogeographical data it seems possible that the *cleophanes*-, *nigriceps*-, *sexspinosa*- and *viehmeyeri*-groups have evolved in the Australian-Papuan area from *Hagiomyrma*-*Hedomyrma*-like ancestors.

Only the *sexspinosa*-group (BOLTON 1975; KOHOUT 1987) and the *viehmeyeri*-group (KOHOUT 1990) have been revised so far. Revisions of the *arachne*-, *cephalotes*-, *cryptoceroide*-, *daphne*-, *flavoflagellata*-, *furcata*-, *hector*- and *ochracea*-group are in preparation.

Distribution: Australia, Bangladesh, Bismarck-Archipelago, Brunei, Burma, Cambodia, India, Indonesia, Israel, Japan, Laos, Malaysia, New Caledonia, New Guinea, Philippines, Solomons, Singapore, Sri Lanka, Syria, Taiwan, Thailand, Vietnam

Polyrhachis arachne-group (new) [fig. 11]

The large species (TL: 8-9 mm) have an immarginate thorax. They are armed with strong pairs of spines on pronotum, propodeum and petiole, the ones on the propodeum ending hook-like. The head is semicircular in sideview and \pm circular in frontal view. The genae are in the upper part somewhat angled, but never marginate. Scape and tibiae are round in transsection. The sculpture is a fine punctation on head and gaster, thorax and petiole are rugose. Hairs and pubescence are nearly lacking, the whole body is mat in *P. hodgsoni*, head and gaster are shiny in *P. arachne*. The ants are totally black. The species can be distinguished from those of the *dives*- and the *armata*-group by their hook-like propodeal spines (in the *dives*-group at most the tips are bent a little, in the *armata*-group they are always straight) and by their unique specialization on living on bamboo.

The monogynous species are specialized weaver ants on broad leaved bamboo, where they construct numerous one-chambered pavilions for Homopterans. While *P. hodgsoni* uses longitudinally rolled leaves and only seals a small slit with silk and fine detritus, *P. arachne* builds its pavilions below normal leaves as relatively coarsely woven long oval silk nets, which are masked with coarse detritus particles. In *P. arachne* the nests are constructed in several stem internodes (often of different bamboo culms), while *P.*

hodgsoni uses one of its leaf-chambers as nest, i. e. permanent residence for the queen.

This group consists of two species. EMERY (1925) included *P. arachne* into the *Polyrhachis armata*-group and *P. hodgsoni* into the *Polyrhachis dives*-group. DOROW & MASCHWITZ (1990) gave a synopsis of the group.

Distribution: Burma, Indonesia, Malaysia, Philippines, Thailand

Polyrhachis arachne EMERY

Polyrhachis arachne EMERY, 1896a: 249

Polyrhachis uncinata ANDRÉ, 1896: 252 [synonymy by EMERY, 1898a: 230]

Polyrhachis hodgsoni FOREL

Polyrhachis hodgsoni FOREL, 1902a: 289

Polyrhachis armata-group [figs. 12-14]

EMERY (1925) described the workers of this group as: "petiole shorter than in the *sexspinosa*-group, but with the same structure; spines inserting distally or at the top of the petiole, the spines are long or short, rarely hooked (*P. furcata*), not inserting far from each other, without a pair of teeth between the spines; sculpture variable" (own translation). I prefer to define the group more narrowly: Small (TL: 5 mm) to large (TL: 8 mm) species with completely immarginate thorax. The usually strong, stout thorax - including the broad based spines on pronotum and propodeum - looks somewhat inflated. The spines on the petiole are sometimes very large and usually embracing the gaster. Scape and tibiae are round in transsection and in the smaller species not as long as in several other *Polyrhachis* species, where they give the ants a spider-like appearance. The genae are marginate (in *P. armata* only in the upper part of the head). The head is shaped semicircular in sideview, circular to roundish oval in frontal view. The body sculpture is usually a fine punctation, giving the body surface a mat appearance, sometimes the head is somewhat coarser sculptured, in *P. armata* and *P. wheeleri* this rugose sculpture is extended to thorax and petiole. Hairs are in most species lacking or sparse, but can be also abundant. The appressed, silvery or golden pubescence is usually abundant, but sometimes nearly lacking, e. g., in *P. armata* and *P. wheeleri*. The body

colour is brownish to black, gaster and appendages are often yellowish to reddish-brown. The large species (e. g., *P. armata*, *P. gestroi*, *P. plato*, *P. wheeleri*) are more slender and not built as stout as the small ones and therefore resemble some species of the *hector*-group or the large species of the *micronata*-group. From both groups they are easily distinguished by their marginate genae, from the latter also by their tibiae and scapes, which are round in trans-section.

The species usually nest in small polydomous colonies in the herb and shrub layer. The one-chamber-nests are constructed with fine detritus and relatively small amounts of silk. The larger species are found more arboreally and use larger amounts of silk. The species live in forests as well as in more open habitats as forest margins, parks and gardens.

This group comprises 14 species. Some species formerly placed here by EMERY (1925) are now associated with the new *Polyrhachis arachne*-, *Polyrhachis cleophanes*-, *Polyrhachis daphne*-, *Polyrhachis furcata*- and *Polyrhachis hector*-group.

Distribution: Bangladesh, Bismarck-Archipelago, Brunei, Burma, Cambodia, China, India, Indonesia, Malaysia, Philippines, Solomons, Singapore, Sri Lanka, Thailand, Vietnam

Polyrhachis armata (LE GUILLOU)

Formica armata LE GUILLOU, 1842: 313

Polyrhachis defensu SMITH, 1857: 59 [synonymy by DALLA TORRE, 1893: 258]

Polyrhachis pandarus SMITH, 1857: 62 [synonymy by ROGER, 1863: 9]

Polyrhachis armata (LE GUILLOU); MAYR, 1867: 46

Polyrhachis armata var. *minor* FOREL, 1886a:

241 [synonymy by BINGHAM, 1903: 393 with

P. defensu SMITH; synonymy by EMERY,

1925: 192 with *P. armata* var. *defensa* SMITH]

Polyrhachis armata var. *defensa* SMITH; EMERY, 1925: 192

Polyrhachis armata var. *minor* FOREL; CHAPMAN & CAPCO, 1951: 285 [syn. rev.]

Polyrhachis basirufa EMERY

Polyrhachis basirufa EMERY, 1900b: 715

Polyrhachis caeciliae FOREL

Polyrhachis caeciliae FOREL, 1912a: 76

Polyrhachis caecileae FOREL; CHAPMAN & CAPCO, 1951: 287 [misspelling]

Polyrhachis fortis EMERY

Polyrhachis fortis EMERY, 1893a: 228

Polyrhachis gestroi gestroi EMERY

Polyrhachis gestroi EMERY, 1900b: 714

Polyrhachis gestroi moeschiella FOREL

Polyrhachis gestroi var. *rufiventris* FOREL,

1911a: 391 [junior primary homonym of *P. alpheus* var. *rufiventris* EMERY, 1911: 256]

Polyrhachis gestroi var. *moeschiella* FOREL,

1918: 726 [replacement name for *P. gestroi* var. *rufiventris* FOREL]

Polyrhachis jianghuaensis WANG & WU

Polyrhachis jianghuaensis WANG & WU, 1991: 597 + 600

Polyrhachis pellita MENOZZI

Polyrhachis pellita MENOZZI, 1922: 356

Polyrhachis bubalus STITZ, 1923: 129 [syn. n.]

Polyrhachis peregrina SMITH

Polyrhachis peregrinus SMITH, 1860a: 71

[described on a female; not associated by EMERY, 1925: 197]

Polyrhachis personata WHEELER

Polyrhachis personata WHEELER, 1919: 134

Polyrhachis plato FOREL

Polyrhachis plato FOREL, 1911a: 393

Polyrhachis saevissima saevissima SMITH

Polyrhachis tibialis SMITH, 1858: 63 partim [sensu BINGHAM, 1903: 396]

Polyrhachis saevissimus SMITH, 1860a: 71

Polyrhachis acantha SMITH, 1860b: 98 [synonymy by MAYR, 1879: 649 with *P. dives* SMITH; stat. rev. DONISTHORPE, 1932b: 460; synonymy by BOLTON, 1974: 178]

Polyrhachis acasta SMITH, 1860b: 100 [synonymy by BINGHAM, 1903: 396 with *P. tibialis* SMITH; synonymy by BOLTON, 1974: 178]

Polyrhachis argenteus MAYR, 1862: 682 [synonymy by MAYR, 1893: 5 with *P. acasta* SMITH; synonymy by BINGHAM, 1903: 397 with *P. tibialis* SMITH; synonymy by EMERY, 1925: 194 with *P. acantha* SMITH]

Polyrhachis acasta FOREL, 1886a: 241 [synonymy by WHEELER, 1919: 131 with *P. argentea* MAYR; synonymy by EMERY, 1925: 194 with *P. acantha* SMITH]

Polyrhachis acantha var. *acasta* SMITH; EMERY, 1900b: 717

Polyrhachis acantha var. *argentea* MAYR; FOREL, 1911e: 286

Polyrhachis acantha var. *acosta* SMITH; CHAPMAN & CAPCO, 1951: 283 [misspelling]

***Polyrhachis saevissima
chrysophanes* EMERY**

Polyrhachis acantha var. *chrysophanes* EMERY, 1900b: 718

***Polyrhachis saevissima diaphantus* SMITH**

Polyrhachis diaphantus SMITH, 1861: 40

Polyrhachis acantha var. *diaphantus* SMITH; EMERY, 1900b: 717

Polyrhachis diaphanta SMITH; DONISTHORPE, 1932b: 466

Polyrhachis acantha var. *diaphantus* SMITH; CHAPMAN & CAPCO, 1951: 283

***Polyrhachis saevissima kerri* FOREL**

Polyrhachis acantha var. *kerri* FOREL, 1911e: 286

***Polyrhachis saevissima romanovi* SANTSCHI**

Polyrhachis acantha dichroa KARAWAJEW, 1927: 33 [junior homonym of *P. laevissima* var. *dichroa* FOREL, 1893a: 21]

Polyrhachis acantha romanovi SANTSCHI, 1928a: 139 [replacement name for *P. acantha dichroa* KARAWAJEW]

***Polyrhachis saevissima timorensis* FOREL**

Polyrhachis acantha r. *timorensis* FOREL, 1913b: 664

***Polyrhachis thompsoni* BINGHAM**

Polyrhachis thompsoni BINGHAM, 1903: 391

Polyrhachis (Myrmhepla) thompsoni BINGHAM; EMERY, 1925: 196 [association with the *P. dives*-group]

***Polyrhachis tibialis tibialis* SMITH**

Polyrhachis tibialis SMITH, 1858: 63

***Polyrhachis tibialis addax* SANTSCHI**

Polyrhachis tibialis var. *addax* SANTSCHI, 1928a: 136

***Polyrhachis tibialis caligata* EMERY**

Polyrhachis caligata EMERY, 1895a: 482

Polyrhachis tibialis SMITH, 1858: 16 partim [sensu FOREL, 1895a: 457]

Polyrhachis tibialis var. *caligata* EMERY; EMERY, 1900b: 717

***Polyrhachis tibialis completa* SANTSCHI**

Polyrhachis tibialis var. *completa* SANTSCHI, 1928a: 135

***Polyrhachis tibialis crassisquama* FOREL**

Polyrhachis tibialis var. *crassisquama* FOREL, 1913g: 139

***Polyrhachis tibialis nigricornis* SANTSCHI**

Polyrhachis tibialis var. *nigricornis* SANTSCHI, 1928a: 136

***Polyrhachis tibialis orientalis* KARAWAJEW**

Polyrhachis tibialis var. *orientalis* KARAWAJEW, 1927: 38

***Polyrhachis tibialis parsis* EMERY**

Polyrhachis tibialis var. *parsis* EMERY, 1900b: 717

Polyrhachis argentea FOREL, 1893a: 27 + 34

[junior homonym of *P. argenteus* MAYR,

1862: 682; synonymy by EMERY, 1925: 196]

Polyrhachis dives argentea FOREL; BALTAZAR, 1966: 281 [Baltazar erroneously reported that EMERY, 1925: 194 had transferred the species]

***Polyrhachis tibialis pectita* SANTSCHI**

Polyrhachis tibialis var. *pectita* SANTSCHI, 1928a: 136

***Polyrhachis tibialis robustior* KARAWAJEW**

Polyrhachis tibialis var. *robustior* KARAWAJEW, 1927: 39

Polyrhachis wheeleri* MANNPolyrhachis wheeleri* MANN, 1919: 387***Polyrhachis bicolor*-group (new)
[fig. 15]**

These species are small (TL: 5.5-6.5 mm) and have a gracile appearance. The thorax is totally immarginate, the spines on pronotum, propodeum and petiole are usually slender, the spines are curved embracing the gaster. The scapes and tibiae are long, thin, spider-like and round in transection. The head is semi-circular in sideview, oval in frontal view. The genae are immarginate. The sculpture is a fine punctation, often obtused by the pubescence, giving the ants a mat appearance. Silvery standing hairs as well as appressed silvery to golden pubescence are abundant. The body colour is black, brownish black, reddish or even amber coloured. *P. bicolor* is bicoloured: head, thorax and tarsi are black, the rest of the body including the mandibles is amber-coloured.

The species are polydomous weaver ants of the shrub and tree layers. *P. bicolor* builds nests usually between two or three living leaves and uses pure larval silk for nestwall construction.

This group comprises four species. EMERY (1925) placed them in the *Polyrhachis dives*-group.

Distribution: Burma, India, Indonesia, Malaysia, New Guinea, Philippines, Singapore, Thailand, Vietnam (new)

Polyrhachis bicolor bicolor* SMITHPolyrhachis bicolor* SMITH, 1858: 65***Polyrhachis bicolor atrocastanea*
KARAWAJEW***Polyrhachis bicolor atrocastanea* KARAWAJEW, 1927: 34***Polyrhachis bicolor aurata* KARAWAJEW***Polyrhachis bicolor aurata* KARAWAJEW, 1935: 114***Polyrhachis bicolor aurinasis* FOREL***Polyrhachis bicolor aurinasis* FOREL, 1901a: 77***Polyrhachis bicolor brachyacantha*
KARAWAJEW***Polyrhachis bicolor brachyacantha* KARAWAJEW, 1935: 144***Polyrhachis bicolor comata* EMERY***Polyrhachis bicolor comata* EMERY, 1911: 538***Polyrhachis bicolor concolor* FOREL***Polyrhachis bicolor concolor* FOREL, 1910d: 129***Polyrhachis bicolor erecta* KARAWAJEW***Polyrhachis bicolor erecta* KARAWAJEW, 1935: 114***Polyrhachis bicolor exflavicornis*
BALTAZAR***Polyrhachis bicolor* var. *flavicornis* STITZ, 1925: 132 [junior homonym of *P. flavicornis* SMITH, 1857: 60]*Polyrhachis bicolor* var. *exflavicornis* BALTAZAR, 1966: 282 [1. replacement name for *P. bicolor* var. *flavicornis* STITZ]*Polyrhachis bicolor* var. *rubricornis* BARONI URBANI, 1971: 362 [2. replacement name for *P. bicolor* var. *flavicornis* STITZ]***Polyrhachis bicolor fumata* STITZ***Polyrhachis bicolor fumata* STITZ, 1923: 131***Polyrhachis bicolor nigripes* EMERY***Polyrhachis bicolor* var. *nigripes* EMERY, 1897a: 592***Polyrhachis bicolor weyeri* KARAWAJEW***Polyrhachis bicolor weyeri* KARAWAJEW, 1930: 212***Polyrhachis longipes* SMITH***Polyrhachis longipes* SMITH, 1859: 140***Polyrhachis subfossa* VIEHMEYER***Polyrhachis subfossa* VIEHMEYER, 1913: 154 [fossil]

Polyrhachis subfossoides* KARAWAJEWPolyrhachis subfossoides* KARAWAJEW, 1927: 37***Polyrhachis cephalotes*-group (new)
[fig. 16]**

This group resembles the *armata*-group, but has teeth at the mesonotum and a disproportionally large head, which is nearly circular in frontal view and the eyes do not break the head's outline.

The single species of this group - *Polyrhachis cephalotes* - was placed by EMERY (1925) into the *Polyrhachis dives*-group.

Distribution: Indonesia, Malaysia

Polyrhachis cephalotes* EMERYPolyrhachis cephalotes* EMERY, 1893a: 199***Polyrhachis cleophanes*-group (new)
[fig. 17]**

Large species (TL: 7-7.5 mm) with an immarginate long and slender thorax, which is flattened but not marginate in *P. smithi*. The species are similar to those of the *sexspinosa*-group, but can be easily differentiated from all other *Polyrhachis* by the very large and elevated antennal carinae. The genae are immarginate. In other respects the species of this group are relatively different from each other: thorax, head and petiole are rugose in *P. cleophanes*, while the thorax is transversally wrinkled in *P. smithi* and longitudinally striate in *P. laminata*. Long hairs are present in *P. cleophanes* on all body surfaces and appendages, but nearly lacking in *P. smithi*.

Nothing is known of the biology of these rare species. Of *P. laminata* only the female is known so far.

This group comprises three species. *P. cleophanes* was placed by EMERY (1925) into the *Polyrhachis armata*-group, *P. smithi* into the *Polyrhachis dives*-group, while he could not associate *P. laminata* with any of his groups.

Distribution: Indonesia

Polyrhachis cleophanes* SMITHPolyrhachis cleophanes* SMITH, 1861: 41*Polyrhachis vibidia* SMITH, 1861: 42 [synonymy by FOREL, 1911b: 298]***Polyrhachis laminata* MAYR***Polyrhachis laminata* MAYR, 1867: 65***Polyrhachis smithi* EMERY***Polyrhachis smithi* EMERY, 1901b: 579***Polyrhachis cryptoceroide*-group
[fig. 18]**[including *Polyrhachis (Aulacomyrma) mystica* KARAWAJEW, 1927: 41]

EMERY (1925) described the workers as: "small sturdy species; thorax more or less obtusely marginate; petiole as in the *dives*-group (petiole short, of the form of an thickened scale, in profile proximally angled or not, spines very much diverging, separated at their base by the dorsally protruding scale, which in many species bears a pair of teeth or small vertical spines); transition to the subgenus *Hedomyrma*" (own translation).

In addition this group can be characterized as follows: very small (TL: 5 mm) species, which show transitions from marginate to immarginate and from a dorsoventrally flattened to a normal rounded thorax. The thorax is dorsoventrally \pm flattened in *P. cryptoceroide* and *P. jerdonii*, resembling *Cataulacus*. The thorax is marginate in *P. cryptoceroide*, only weakly marginate in *P. jerdonii* and immarginate in *P. wroughtonii*. These species are stout with a short and broad thorax which is narrowing distally. The first gaster segment is proximally transversally marginate on top. The pairs of spines on pronotum, propodeum and petiole insert with broad bases, the latter are curved \pm embracing the gaster. Antennae and legs are short and round in transection. The genae are marginate. Head, thorax and petiole are moderately rugose, the gaster is finely punctate. Hairs are nearly lacking and the silvery pubescence is sparse, appressed. The ants are mat and usually coloured black, with the appendages sometimes yellowish-brownish. Only *P. wroughtonii* might be mistaken for an *armata*-group-species, but this species is very small, has the pronotum armed with short very broadly inserting teeth. The first gaster segment is marginate on top anteriorly.

The species are not common and seem to be restricted to primary forests. They are nesting in small polydomous colonies below the bark of tree trunks and branches and use silk and detritus for nest construction.

This group comprises three species which were already placed there by EMERY (1925).

Distribution: India, Indonesia, Malaysia, Philippines, Sri Lanka

Polyrhachis cryptoceroides EMERY

Polyrhachis cryptoceroides EMERY, 1887a: 228

Polyrhachis cryptocera EMERY; FOREL, 1913g: 136 [misspelling]

Polyrhachis (Chariomyrma) cryptoceroides EMERY; FOREL, 1915a: 107

Polyrhachis (Myrmhopla) cryptoceroides EMERY; EMERY, 1925: 190

Polyrhachis (Aulacomyrma) mystica KARAWAJEW, 1927: 41 [syn. n.]

Polyrhachis (Aulacomyrma) mystica KARAWAJEW; CHAPMAN & CAPCO, 1951: 256 [misspelling]

Polyrhachis jerdonii FOREL

Polyrhachis jerdonii FOREL, 1892a: 17

Polyrhachis (Chariomyrma) jerdoni FOREL; FOREL, 1915a: 107 [misspelling]

Polyrhachis (Myrmhopla) jerdoni FOREL; EMERY, 1925: 191

Polyrhachis wroughtonii FOREL

Polyrhachis wroughtonii FOREL, 1894a: 398

Polyrhachis (Myrmhopla) wroughtonii FOREL; FOREL, 1915a: 107

Polyrhachis wroughtoni FOREL; EMERY, 1925: 191; CHAPMAN & CAPCO, 1951: 300 [misspelling]

Polyrhachis daphne-group (new) [fig. 19]

Polyrhachis daphne the single member of this group was placed by EMERY (1925) into the *Polyrhachis armata*-group. It is a small species (TL: 6 mm). The thorax is immarginate, but the bases of the propodeal spines are running forward, so that the propodeum is partly marginate. The thorax is curved weakly convex, but each segment itself is stronger convex. Pairs of spines with broad bases are present on pronotum,

propodeum and petiole, the petiolar spines are curved nearly embracing the gaster. Scapes and tibiae are round in transection, the genae are immarginate. The head is semicircular in sideview, oval in frontal view. Hairs are nearly lacking, the silvery pubescence is sparse and appressed. A fine fingerprint-like sculpturation is present on head, thorax and petiole, the gaster is smooth and the whole body is shiny. The species is amber coloured with some darker brown parts. *P. daphne* can be easily distinguished from the *armata*-group species by its immarginate genae.

I found this rare polydomous species in a secondary forest in woven silk nests between tree leaves close to *Myrmecaria* nests. *P. daphne* looks very similar to this *Myrmecaria* species.

Distribution: Malaysia

Polyrhachis daphne WHEELER

Polyrhachis daphne WHEELER, 1919: 133

Polyrhachis dives-group [fig. 20]

EMERY (1925) described the workers of this group as: "petiole short, of the form of a thickened scale, in profile proximally angled or not, spines very much diverging, separated at their base by the dorsally protruding scale which bears in many species a pair of teeth or small vertical spines; sculpture variable" (own translation). Except for the not very helpful comment on the sculpture this description is identical to that of the *cryptoceroides*-group.

I prefer to define the group more narrowly: Smaller species (TL: ca. 7 mm) with a little polymorphism. Thorax totally immarginate. Pairs of spines present on pronotum, propodeum and petiole, the petiolar spines embracing the gaster. The spines are not very stout and do not look inflated, even if the thorax looks stout. The tips of the propodeal spines are a little curved, but never hook-like. Scapes and tibiae are round in transection, the genae are at most a little angled in the upper parts, but never marginate. The head is semicircular in sideview, nearly circular in frontal view. Hairs are nearly lacking, while a sparse to moderately dense silvery or golden pubescence may be present. The body shows a moderately coarse rugose sculpture except for the gaster, which is finely punctate. The species are coloured black to brownish black.

P. dives and *P. lacteipennis* are polydomous weaver ants which build multi-chambered nests as well as

pavillons for homopterans. They mainly live in open habitats such as grasslands and have a wide range of distribution. *P. lacteipennis* even succeeded in colonizing the Arabian peninsula. The two species have very large colonies, *P. dives* is polygynous. Not much is known about the other species of this group. The species can be distinguished from those of the *armata*-group by the lack of margination of the genae, from the *arachne*-group by the form of their propodeal spines, whose tips are never curved hook-like.

This group comprises eight species. I transferred some of the species, placed by EMERY (1925) into this group, to the new *Polyrhachis bicolor*-, *P. cephalotes*- or *P. mucronata*-group, and others to the old *P. armata*-, *P. sexspinosa*- or *P. vielmeyeri*-group. *P. mutillae*, which was not associated by EMERY (1925) with one of his groups, is a synonym of *P. dives*.

Distribution: Afghanistan (COLLINGWOOD, pers. comm.), Burma, India, Indochina, Indonesia, Iran (COLLINGWOOD, pers. comm.), Iraq (COLLINGWOOD, pers. comm.), Israel, Japan, Malaysia, Morocco (COLLINGWOOD, pers. comm.), Nepal (COLLINGWOOD, pers. comm.), New Guinea, Oman (COLLINGWOOD, pers. comm.), Pakistan (new), Philippines, Saudi Arabia (COLLINGWOOD, pers. comm.), Sri Lanka, Taiwan, Thailand, Yemen (COLLINGWOOD, pers. comm.)

Polyrhachis diotima FOREL

Polyrhachis diotima FOREL, 1911d: 60

Polyrhachis dives dives SMITH

Polyrhachis dives SMITH, 1857: 64

Polyrhachis affinis SMITH, 1858: 63 [junior homonym of *P. affinis* (LE GUILLON, 1842: 314); restored by FOREL, 1886a: 242 because the latter is a synonym of *P. bihamata* (DRURY, 1773: 73); indirectly synonymized by WANG & WU, 1991: 599 with *P. dives* SMITH, 1857: 64, see below at *P. vicina* ROGER]

Polyrhachis acantha SMITH, 1860b: 98 partim [sensu MAYR, 1879: 649]

Polyrhachis mutillae SMITH, 1861: 39 [synonymy by BOLTON, 1974: 173]

Polyrhachis democles SMITH, 1861: 40 [synonymy by FOREL, 1911b: 298]

Polyrhachis vicina ROGER, 1863: 7 [replacement name for *P. affinis* SMITH, 1858: 63; synonymy by WANG & WU, 1991: 599 with *P. dives* SMITH, 1857: 64, this makes *P. affinis* SMITH a synonym]

Polyrhachis dives var. *euclides* FOREL, 1913a: 202 [synonymy by BOLTON, 1974: 173]

Polyrhachis mutillae SMITH, DONISTHORPE, 1932b: 465 [misspelling]

Polyrhachis exulans CLARK, 1941b: 91 [synonymy by KOHOUT, 1988c: 433]

Polyrhachis lucens DONISTHORPE, 1947b: 194 [described on a female] syn. n.

Polyrhachis dives: YOUNG, 1991: 85 [misspelling]

Polyrhachis dives belli FOREL

Polyrhachis dives belli FOREL, 1912a: 74

Polyrhachis dives rectispina KARAWAJEW

Polyrhachis dives var. *rectispina* KARAWAJEW, 1927: 35

Polyrhachis dives siwiensis SANTSCHI

Polyrhachis dives var. *siwiensis* SANTSCHI, 1932: 20

Polyrhachis lacteipennis *lacteipennis* SMITH

Polyrhachis lacteipennis SMITH, 1858: 60

Polyrhachis simplex MAYR, 1862: 682 [synonymy by BOLTON, 1974: 177]

Polyrhachis spiniger MAYR, 1879: 653

[synonymy by FOREL, 1893a: 36 with *P. simplex* MAYR, 1862: 682; synonymy by BOLTON, 1974: 177]

Polyrhachis spinigera MAYR, FOREL, 1886a: 241; EMERY, 1889: 519; WROUGHTON, 1892: 17ff; EMERY, 1893b: 254 [misspelling]

Polyrhachis lacteipennis SMITH, DALLA TORRE, 1893: 270 [misspelling]

Polyrhachis lacteipennis griseescens EMERY

Polyrhachis simplex var. *griseescens* EMERY, 1895a: 483

Polyrhachis lacteipennis obsoleta FOREL

Polyrhachis simplex var. *obsoleta* FOREL, 1893a: 34

Polyrhachis menelas FOREL

Polyrhachis menelas FOREL, 1904a: 30

Polyrhachis rupicapra ROGER

Polyrhachis rupicapra ROGER, 1863: 154

Polyrhachis ruficapra ROGER, 1893: 154; BINGHAM, 1896: 407; CHAPMAN & CAPCO, 1951: 296 [misspelling and wrong date]

***Polyrhachis sophocles* FOREL**

Polyrhachis sophocles FOREL, 1908: 10

***Polyrhachis tubericeps* FOREL**

Polyrhachis tubericeps FOREL, 1893a: 26

***Polyrhachis xanthippe* FOREL**

Polyrhachis xanthippe FOREL, 1911d: 61

***Polyrhachis flavoflagellata*-group
(new) [fig. 21]**

[including *Polyrhachis* (*Cephalomyrma*) KARAWAJEW, 1935: 115]

These species of this group are small (TL: 6 mm), with an immarginate thorax, but a very obtuse margination may be present on mesothorax and propodeum. The thorax is massive and narrowing distally. The head is large, less than semicircular in sideview and elongately oval in frontal view. The eyes are only weakly convex and situated on the very upper part of the head. Short pairs of spines are present on propodeum and petiole, the petiolar spines sometimes with a pair of teeth between them. The pronotum is armed only with teeth. Scapes and tibiae are round in transection, the genae are immarginate. The whole body surface is finely punctate. Hairs are nearly lacking, but a dense appressed silvery or golden pubescence is present. The body colour is black to brownish.

Nothing is known about the biology of these rare species. One specimen of *P. flavoflagellata* was collected on a shrub near the east coast of the Malay peninsula (leg. BRIGITTE FIALA), another specimen of an undescribed species on a log in Gunung Kinabalu National Park in Sarawak (leg. MARTIN DILL).

This group comprises two species which were described after EMERY'S (1925) synthesis of the genus.

Distribution: Indonesia, Malaysia, Thailand

***Polyrhachis flavoflagellata* KARAWAJEW**

Polyrhachis flavoflagellata KARAWAJEW, 1927: 35

Polyrhachis flavo-flagellata KARAWAJEW; CHAPMAN & CAPCO, 1951: 290 [misspelling]

***Polyrhachis stylifera* KARAWAJEW**

Polyrhachis (*Cephalomyrma*) *stylifera* KARAWAJEW, 1935: 115

***Polyrhachis furcata*-group (new)
[fig. 22]**

The group comprises small species (TL: 6 mm) with an immarginate thorax which is narrowing posteriorly in topview. In sideview the thorax is strongly convex. Pairs of long acute spines are present on pronotum, propodeum and petiole. The petiolar spines differ very much in shape, inserting V-shaped or U-shaped and ending straight (in *P. etheli*, *P. gracilior*, *P. rufipes*), in strong hooks (*P. furcata*) or in little barbs (*P. tragos*). The petiole is elevated columnar in *P. tragos*. Scapes and tibiae are round in transection, the genae are marginate (in *P. etheli*, *P. gracilior* and *P. rufipes*) or rounded (in *P. furcata* and *P. tragos*). The head is semicircular in sideview, oval in frontal view. A coarse rugose sculpture is present on thorax and petiole (sometimes also on parts of the head). The thorax is mat, while usually head and gaster are smooth and shiny. Standing hairs are abundant to moderately abundant, while an appressed silvery pubescence is moderately abundant to sparse. The body colour is black, brownish black, reddish black or reddish brown.

The species are weaver ants which live mainly in the herb layer. Trail and nest sharing was observed in *P. rufipes* with *Gnamptogenys binghami* FOREL, 1900 (JUTTA RÜBER, pers. comm.).

This group comprises five species. EMERY (1925) placed them into the *Polyrhachis armata*-group.

Distribution: Burma, India, Indonesia, Malaysia, Philippines, Thailand, Vietnam

***Polyrhachis etheli* CHAPMAN**

Polyrhachis etheli CHAPMAN, 1963: 260

***Polyrhachis furcata* SMITH**

Polyrhachis furcatus SMITH, 1858: 64

- Polyrhachis furcata* var. *tenella* FOREL, 1902a: 289 [syn. n.]
Polyrhachis furcata var. *bankensis* FOREL, 1911b: 297 [syn. n.]
Polyrhachis furcata pahangana FOREL, 1911a: 395 [syn. n.]

Polyrhachis gracilior FOREL

- Polyrhachis furcata* r. *gracilior* FOREL, 1893a: 25
Polyrhachis gracilior FOREL; BINGHAM, 1903: 388
Polyrhachis furcata gracilior FOREL; EMERY, 1925: 193; CHAPMAN & CAPCO, 1951: 290
Polyrhachis (Myrmhopla) weberi DONISTHORPE, 1943b: 206 [synonymy by BOLTON, 1974: 174]
Polyrhachis gracilior FOREL; BOLTON, 1974: 174

Polyrhachis rufipes SMITH

- Polyrhachis rufipes* SMITH, 1858: 66
Polyrhachis exasperatus SMITH, 1862: 41 [synonymy by BOLTON, 1974: 178]
Polyrhachis phipsoni FOREL, 1894a: 399 [synonymy by BOLTON, 1974: 178]
Polyrhachis exasperata var. *phipsoni* FOREL; FOREL, 1911a: 395
Polyrhachis exasperata var. *oblisa* FOREL, 1911a: 395 [synonymy by BOLTON, 1974: 178]
Polyrhachis exasperata piphsoni FOREL; CHAPMAN & CAPCO, 1951: 290 [misspelling]

Polyrhachis tragos STITZ

- Polyrhachis tragos* STITZ, 1923: 133

Polyrhachis hector-group (new) [fig. 23]

The group comprises large slender species (TL: 8-10 mm). The thorax is immarginate, sometimes the mesonotum is obtusely marginate because of its concave shape, sometimes the propodeum is more or less marginate due to the forward running bases of its spines. Long slender spines are present at the pronotum, propodeum and petiole (here in most species shorter), the petiolar spines more or less curved embracing the gaster. The head is usually semicircular in sideview, oval in frontal view. One still undescribed species has a very elongate head. Scapes and hind tibiae are flattened, the genae are immarginate. The legs are very long, giving the species a spider-like appearance. The body is usually finely punctate. Hairs and pubescence are lacking or sparse. The col-

our is black to brownish with the gaster in some species blue, green or red. This species-group can be easily differentiated from all other *Polyrhachis* species by their flattened scapes and tibiae. Only in *Hagiomyrma* a few species also show a weak flattening of scapes and tibiae, but their thorax is always fully marginate. There is a strong resemblance to some larger species of the *armata*-group, e. g. to *P. armata* and *P. gestroi*, but these species never have flattened appendages and always have marginate genae.

The species are polydomous weaver ants of the shrub and tree layer and live in forests and at forest margins. They use large amounts of silk in constructing their usually one-chambered nests or occupy internodes of bamboo.

This group comprises 11 described and two undescribed species. EMERY (1925) placed most of them into the *Polyrhachis armata*-group, *P. maligna* into the *P. dives*-group. A revision of this group is in preparation by the author.

Distribution: Bangladesh, Brunei, Burma, India, Indonesia, Malaysia, Philippines, Singapore, Sri Lanka, Thailand, Vietnam

Polyrhachis abdominalis SMITH

- Polyrhachis hector* SMITH, 1857: 62 partim [sensu BOLTON, 1974: 174]
Polyrhachis abdominalis SMITH, 1858: 63
Polyrhachis phyllophilus SMITH, 1860a: 69 [synonymy by MAYR, 1886: 357]
Polyrhachis abdominalis phyllophila SMITH; EMERY, 1900b: 714
Polyrhachis achilles var. *confinis* FOREL, 1912a: 76 [see note]
Polyrhachis achilles discrepans FOREL, 1912a: 76 [see note]
Polyrhachis monacha KARAWAJEW, 1926: 144 [nomen nudum; synonymy by KARAWAJEW, 1927: 29 with *P. abdominalis phyllophila* SMITH]

Note: The synonymy of *Polyrhachis achilles* FOREL, 1893a: 24 by BINGHAM, 1903: 398 with *P. abdominalis* is not correct. Only the variety *confinis* and the subspecies *discrepans* are synonyms of *P. abdominalis*, while *P. achilles* itself is a synonym of *P. hector*.

Polyrhachis oedipus FOREL

- Polyrhachis oedipus* FOREL, 1893a: 22 + 31
Polyrhachis phyllophila oedipus FOREL; EMERY, 1893b: 255

Polyrhachis oedipus FOREL; BINGHAM, 1903: 384 + 398

***Polyrhachis binghamii* FOREL**

Polyrhachis binghamii FOREL, 1893a: 25
Polyrhachis binghami FOREL; BINGHAM, 1903: 399; DONISTHORPE, 1942b: 460; CHAPMAN & CAPCO, 1951: 287 [misspelling]

***Polyrhachis chalybea* SMITH**

Polyrhachis chalybeus SMITH, 1857: 61
Polyrhachis sappho FOREL, 1911b: 299 [syn. n.]
Polyrhachis chalybaea SMITH; CHAPMAN & CAPCO, 1951: 288 [misspelling]

***Polyrhachis curvispina* FOREL [stat. n.]**

Polyrhachis oedipus var. *curvispina* FOREL, 1908: 8

***Polyrhachis hector* SMITH**

Formica rubiginosa LE GUILLLOU, 1841: 324
 [junior primary homonym of *Formica rubiginosa* LATREILLE, 1802: 170]
Formica ruiginosa LE GUILLLOU; LE GUILLLOU, 1842: 316 [misspelling]
Polyrhachis hector SMITH, 1857: 62 [first available name]
Polyrhachis abdominalis SMITH, 1858: 63 partim [sensu BINGHAM, 1903: 398]
Polyrhachis malignus SMITH, 1858: 70 [synonymy by BOLTON, 1974: 174]
Polyrhachis rubiginosa (LE GUILLLOU); ROGER, 1863: 7 + 45
Polyrhachis achilles FOREL, 1893a: 24
 [synonymy by BINGHAM, 1903: 398; stat. rev. EMERY, 1925: 192; syn. rev.; see note at *P. abdominalis*]
Polyrhachis abdominalis var. *reversa* ANDRÉ, 1896: 253 [syn. n.]

***Polyrhachis muelleri* FOREL**

Polyrhachis mülleri FOREL, 1893a: 23 [incorrect original spelling]
Polyrhachis phyllophila SMITH, 1860a: 69 partim [sensu EMERY, 1895a: 482]
Polyrhachis Arthuri Müller FOREL; FOREL, 1915b: 43 [nomen nudum, probably misspelling for *P. muelleri* FOREL]
Polyrhachis arturi-muelleri arturi FOREL; CHAPMAN & CAPCO, 1951: 304 [nomen nudum, probably misspelling for *P. muelleri* FOREL]

***Polyrhachis mutata* SMITH [stat. rev.]**

Polyrhachis hector SMITH, 1857 partim [sensu BOLTON, 1974: 174]
Polyrhachis mutatus SMITH, 1858: 64
Polyrhachis mutata r. *ajax* FOREL, 1893a: 24
 [synonymy by BINGHAM, 1903: 399]
Polyrhachis ajax FOREL; EMERY, 1895a: 482
Polyrhachis mutata ajax FOREL; EMERY, 1925: 193 [syn. rev.]
Polyrhachis mutata SMITH; BOLTON, 1974: 174 [synonymized with *P. hector* SMITH]

***Polyrhachis pressa* MAYR**

Polyrhachis pressus MAYR, 1862: 681

***Polyrhachis tubifex* KARAWAJEW**

Polyrhachis tubifex KARAWAJEW, 1927: 31

***Polyrhachis venus* FOREL [stat. rev.]**

Polyrhachis venus FOREL, 1893a: 23
Polyrhachis chalybea SMITH, 1857: 61 partim [sensu CHAPMAN & CAPCO, 1951: 299]

***Polyrhachis mucronata*-group (new)
 [figs. 24, 25]**

Usually smaller species (TL: 5 mm - rarely 8 mm) with the thorax totally immarginate. In sideview the thorax is short and strongly convex. In topview it is strongly narrowing from pronotum to propodeum. Strong spines are on propodeum and petiole, the petiolar spines usually embracing the gaster. The pronotum is armed much less (shoulders, teeth or spines); usually with teeth. Scapes and tibiae are round in transection, the genae are immarginate. The head is nearly semicircular in sideview, oval in frontal view. The body is often smooth and shiny black, sometimes finely punctate and mat. Hairs are nearly lacking, the pubescence is usually sparse, rarely moderately dense (e. g. in *P. mitrata*), appressed, golden or silvery. The body colour varies from black to amber-reddish, that of the legs from black to yellow. A few larger species have the thorax longer and less strongly convexly curved (e. g. *P. aspasia*, *P. tristis*) and they are finely punctate and mat. They therefore resemble species of the *hector*-group or of the *armata*-group. From the former they are easily distinguished by the tibiae and scapes, which are never flattened, from the latter by the lack of margination of the genae.

These forest species live in small polydomous colonies especially in the shrub and tree layer, where the nests often are constructed below leaves as slender, long oval buildings of large amounts of detritus and small amounts of silk. The nests consist of one or a few (consecutively added?) chambers.

This group comprises 28 species. EMERY (1925) placed them into the *P. dives*-group or could not associate them.

Distribution: Bismarck-Archipelago, Burma, China, India, Indonesia, Laos, Malaysia, New Guinea, Philippines, Sri Lanka

***Polyrhachis amanus* SMITH**

Polyrhachis amanus SMITH, 1861: 41

***Polyrhachis aspasia* FOREL**

Polyrhachis aspasia FOREL, 1911d: 59

***Polyrhachis atrovirens* EMERY**

Polyrhachis atrovirens EMERY, 1900b: 718

***Polyrhachis banghaasi* VIEHMEYER**

Polyrhachis banghaasi VIEHMEYER, 1922: 219
Polyrhachis bang-haasi VIEHMEYER: CHAPMAN & CAPCO, 1951: 286 [misspelling]

***Polyrhachis batesi* FOREL**

Polyrhachis batesi FOREL, 1911b: 301

***Polyrhachis cyrtomyrmoides* DONISTHORPE**

Polyrhachis cyrtomyrmoides DONISTHORPE, 1947b: 195

***Polyrhachis distincta* KARAWAJEW**

Polyrhachis distincta KARAWAJEW, 1927: 40

***Polyrhachis emmae* SANTSCHI**

Polyrhachis emmae SANTSCHI, 1920a: 175 [identical description as sp. n. in SANTSCHI, 1924b]

***Polyrhachis follicula* MENOZZI
[subgen. comb. n.]**

Polyrhachis follicula MENOZZI, 1926: 101

Polyrhachis (Myrmatopa) follicula MENOZZI;
CHAPMAN & CAPCO, 1951: 280

***Polyrhachis glykera* FOREL**

Polyrhachis glykera FOREL, 1912a: 72

***Polyrhachis hippomanes*
hippomanes SMITH**

Polyrhachis hippomanes SMITH, 1861: 43

***Polyrhachis hippomanes boettcheri* STITZ**

Polyrhachis hippomanes r. *boettcheri* STITZ, 1923: 131
Polyrhachis hippomanes boettscheri STITZ;
CHAPMAN & CAPCO, 1951: 291 [misspelling]

***Polyrhachis hippomanes*
ceylonensis EMERY**

Polyrhachis hippomanes ceylonensis EMERY in FOREL, 1893a: 22
Polyrhachis ceylonensis EMERY; BINGHAM, 1903: 400
Polyrhachis hippomanes-ceylonensis EMERY; FOREL, 1909b: 402 [misspelling]
Polyrhachis ceylonica; FOREL, 1922: 172 [nomen nudum, probably misspelling for *P. ceylonensis* EMERY]
Polyrhachis hippomanes ceylonensis EMERY; EMERY, 1925: 195

***Polyrhachis hippomanes hortensis* FOREL**

Polyrhachis hippomanes var. *hortensis* FOREL, 1913g: 138

***Polyrhachis hippomanes lucidula* EMERY**

Polyrhachis hippomanes lucidula EMERY, 1893b: 255

***Polyrhachis keratifera* KARAWAJEW**

Polyrhachis keratifera KARAWAJEW, 1927: 89

***Polyrhachis laevigata* SMITH**

Polyrhachis laevigatus SMITH, 1857: 62
Polyrhachis levigata SMITH; ROGER, 1863: 6;
DALLA TORRE, 1893: 264; BINGHAM, 1903: 400 [misspelling]

Polyrhachis mitrata* MENOZZIPolyrhachis mitrata* MENOZZI, 1932b: 303***Polyrhachis modesta* SMITH
[subgen. comb. n.]***Polyrhachis modestus* SMITH, 1857: 62*Polyrhachis (Charatomyrma) modesta* SMITH;
EMERY, 1925: 186*Polyrhachis (Fedomyrma) modesta* SMITH;
DONISTHORPE, 1932b: 446*Polyrhachis (Charatomyrma) modesta* SMITH;
CHAPMAN & CAPCO, 1951: 262***Polyrhachis moeschi* FOREL***Polyrhachis moeschi* FOREL, 1912a: 73***Polyrhachis moesta* EMERY***Polyrhachis hippomanes* var. *moesta* EMERY,
1887a: 237*Polyrhachis moesta* EMERY; WANG & WU, 1991:
599***Polyrhachis mucronata mucronata* SMITH***Polyrhachis mucronatus* SMITH, 1859: 140***Polyrhachis mucronata*
bismarckensis FOREL***Polyrhachis mucronata* var. *bismarckensis* FO-
REL, 1901b: 33***Polyrhachis mucronata*
janthinogaster EMERY***Polyrhachis mucronata* var. *janthinogaster* EME-
RY, 1911: 538***Polyrhachis mucronata*
japensis DONISTHORPE***Polyrhachis mucronata japensis* DONISTHORPE,
1941b: 63***Polyrhachis nitida* SMITH***Polyrhachis nitidus* SMITH, 1857: 61***Polyrhachis nudata* SMITH***Polyrhachis nudatus* SMITH, 1860a: 71***Polyrhachis oedacantha* WHEELER***Polyrhachis oedacantha* WHEELER, 1919: 135*Polyrhachis oedacantha* WHEELER; CHAPMAN &
CAPCO, 1951: 294 [misspelling]***Polyrhachis orpheus* FOREL***Polyrhachis orpheus* FOREL, 1911c: 216***Polyrhachis paromalus paromalus* SMITH***Polyrhachis paromalus* SMITH, 1863: 15***Polyrhachis paromalus tobias* FOREL***Polyrhachis paromalus tobias* FOREL, 1911a: 391***Polyrhachis platynota* STITZ***Polyrhachis platynota* STITZ, 1933: 74*Polyrhachis platynota* STITZ; CHAPMAN & CAPCO,
1951: 295 [misspelling]***Polyrhachis retrorsa* EMERY***Polyrhachis retrorsa* EMERY, 1900b: 719***Polyrhachis ridleyi* FOREL***Polyrhachis ridleyi* FOREL, 1912a: 71***Polyrhachis rubigastrea****Polyrhachis rubigastrea* WANG & WU, 1991:
598*Polyrhachis rubigastrea* WANG & WU; WANG &
WU, 1991: 600 [misspelling]***Polyrhachis tristis* MAYR***Polyrhachis tristis* MAYR, 1867: 46***Polyrhachis nigriceps*-group [fig. 26]**

EMERY (1925) described the workers as: "form of petiole and head like in the *sexspinosa*-group (petiole long, anteriorly with an elevated angle in profile...; head long, distally narrowing); spines of petiole short and only little diverging; body surface smooth and shiny" (own translation).

This group comprises two species, which were arranged in this sense already by EMERY (1925).

Distribution: Indonesia, New Guinea

***Polyrhachis croceiventris* EMERY**

Polyrhachis croceiventris EMERY, 1900a: 336

***Polyrhachis nigriceps* SMITH**

Polyrhachis nigriceps SMITH, 1863: 17

Polyrhachis atalanta EMERY, 1898b: 243 [synonymy by EMERY, 1925: 192]

Polyrhachis (Florencea) kirkae DONISTHORPE,

1937b: 624 [synonymy by HUNG, 1971: 44]
Florencea kirkae (DONISTHORPE); DONISTHORPE, 1940: 254 [synonymy by BROWN, 1973: 180]

Polyrhachis (Florencea) kiski DONISTHORPE;
CHAPMAN & CAPCO, 1951: 267 [misspelling]

***Polyrhachis ochracea*-group (new)
[fig. 27]**

P. ochracea is a large species (TL: 8-9 mm) with an immarginate and in sideview weakly convex thorax. Long slender pairs of spines are present on pronotum, propodeum and petiole. The head is semicircular in sideview, oval in frontal view. Scapes and tibiae are round in transection, the genae are marginate. The sculpture is moderately rugose and weakly shiny on head, thorax and petiole, while the gaster is finely reticulate and mat. Whitish long erect thin hairs and a whitish appressed pubescence are abundant, the latter especially on the flanks of the thorax. The body is amber-coloured with blackish spines and tarsi. The species can be distinguished from the *armata*-group by its abundant hairs and pubescence and its spines, which are not stout and do not look inflated.

This group consists only of *Polyrhachis ochracea*, which was described after EMERY'S (1925) synthesis of the genus.

P. ochracea is a rare species of the crown region of the forests and builds nests between leaves, where the additional walls are constructed of pure silk.

Distribution: Indonesia, Malaysia, Thailand

***Polyrhachis ochracea* KARAWAJEW**

Polyrhachis ochracea KARAWAJEW, 1927: 30

Polyrhachis ochraceae KARAWAJEW; CHAPMAN & CAPCO, 1951: 294 [misspelling]

***Polyrhachis sexspinosa*-group
[fig. 28]**

EMERY (1925) described the workers as: "petiole long, anteriorly with an elevated angle in profile, spines inserting distally, spines relatively short and only little diverging; head long, distally narrowing; sculpture rugose; large species" (own translation).

Additional data of this group are: Large slender species (TL: 8-13 mm) with an immarginate thorax. Long slender spines are present on prothorax, propodeum and petiole, only in *P. calypso* the petiolar spines are curved hook-like. The head is elongately oval in frontal view. The long and spider-like legs and the antennae are round in transection, the genae are immarginate, only the neck might wear a "frill". The mat body is usually sculptured rugosely, the shiny gaster is often only finely punctate. *P. melpomene* in contrast has a striate body sculpture except on the gaster. Erect hairs and appressed pubescence are usually numerous. The body colour is black, brownish or reddish.

These species are polydomous weaver ants of the shrub and tree layer.

This group, which was established by EMERY (1925), today comprises 17 species. *P. melpomene*, which was placed by EMERY (1925) into the *P. dives*-group, and *P. olybrius*, which he could not associate, also belong to this species-group. BOLTON (1975) and KOHOUT (1987) (for the Philippines) revised this group.

Distribution: Australia, India, Indonesia, Malaysia, New Guinea, New Caledonia, Philippines, Solomons, Singapore, Thailand (new). This group has evolutionary centers in New Guinea and in the Philippines.

***Polyrhachis aureovestita* DONISTHORPE**

Polyrhachis aureovestitus DONISTHORPE, 1937a: 274

Polyrhachis auriovestibus DONISTHORPE; DONISTHORPE, 1947a: 592 [misspelling]

***Polyrhachis bubastes* SMITH**

- Polyrhachis bubastes* SMITH, 1863: 15
Polyrhachis spinosa MAYR, 1867: 11 [synonymy by BOLTON, 1975: 6]
Polyrhachis variolosa EMERY, 1887a: 236 [synonymy by BOLTON, 1975: 6]
Polyrhachis bubastes spinosa MAYR; EMERY, 1898a: 230
Polyrhachis variolosa var. *waigiouensis* FOREL, 1911b: 299 [synonymy by BOLTON, 1975: 6]
Polyrhachis variolosa var. *curvispina* STITZ, 1911: 379 [junior homonym of *P. curvispina* FOREL, 1908: 8]
Polyrhachis variolosa var. *arcispina* SANTSCHI, 1916: 243 [replacement name for *P. variolosa* var. *curvispina* STITZ; synonymy by BOLTON, 1975: 6]
Polyrhachis rugosissima DONISTHORPE, 1943c: 468 [synonymy by BOLTON, 1975: 6]
Polyrhachis hirta DONISTHORPE, 1949b: 418 [junior homonym of *P. hirta* VIEHMEYER, 1914c: 59]
Polyrhachis kellyi HUNG, 1967b: 201 [replacement name for *P. hirta* DONISTHORPE, 1949b: 418; synonymy by BOLTON, 1975: 6]

***Polyrhachis calypso* FOREL**

- Polyrhachis spinosa calypso* FOREL, 1911a: 394
Polyrhachis sexspinosa var. *malaccana* VIEHMEYER, 1916a: 167 [synonymy by BOLTON, 1975: 7]
Polyrhachis capra KARAWAJEW, 1927: 27 [synonymy by BOLTON, 1975: 7]
Polyrhachis clypeo FOREL; CHAPMAN & CAPCO, 1951: 288 [misspelling]

***Polyrhachis exotica* KOHOUT**

- Polyrhachis exotica* KOHOUT, 1987: 170

***Polyrhachis glabrinota* CLARK**

- Polyrhachis glabrinotum* CLARK, 1930: 13

***Polyrhachis ignota* KOHOUT**

- Polyrhachis ignota* KOHOUT, 1987: 171

***Polyrhachis magnifica* MENOZZI**

- Polyrhachis sexspinosa magnifica* MENOZZI, 1926: 98
Polyrhachis magnifica MENOZZI; BOLTON, 1975: 9

***Polyrhachis melpomene* EMERY**

- Polyrhachis melpomene* EMERY, 1897a: 592

***Polyrhachis nofra* BOLTON**

- Polyrhachis nofra* BOLTON, 1975: 9

***Polyrhachis olybrius* FOREL**

- Polyrhachis olybrius* FOREL, 1912a: 73

***Polyrhachis osiris* BOLTON**

- Polyrhachis osiris* BOLTON, 1975: 10

***Polyrhachis reclinata* EMERY**

- Polyrhachis sexspinosa* (LATREILLE, 1802: 126) partim [sensu BOLTON, 1975: 12]
Polyrhachis reclinata EMERY, 1887a: 236 [synonymy by BOLTON, 1975: 12 with *P. sexspinosa* (LATREILLE, 1802: 126)]
Polyrhachis sexspinosa var. *reclinata* FOREL, 1911b: 299 [nomen nudum, probably misspelling for *P. reclinata* EMERY]
Polyrhachis sexspinosa var. *reclinata* EMERY; CHAPMAN & CAPCO, 1951: 295
Polyrhachis reclinata EMERY; KOHOUT & TAYLOR, 1990: 518

***Polyrhachis rhea* FOREL**

- Polyrhachis sexspinosa rhea* FOREL, 1911b: 299
Polyrhachis rhea FOREL; BOLTON, 1975: 11

***Polyrhachis rugifrons* SMITH**

- Polyrhachis rugifrons* SMITH, 1860a: 70
Polyrhachis sexspinosa rugifrons SMITH; VIEHMEYER, 1913: 153
Polyrhachis rugifrons SMITH; EMERY, 1925: 191

***Polyrhachis scabra* KOHOUT**

- Polyrhachis scabra* KOHOUT, 1987: 175

***Polyrhachis sexspinosa* (LATREILLE)**

- Formica sex-spinosaser-* LATREILLE, 1802: 126 [incorrect original spelling]
Formica argentata FABRICIUS, 1804: 413 [synonymy by ROGER, 1863: 6]
Polyrhachis sexspinosa (LATREILLE); SMITH, 1858: 59
Polyrhachis argentatus (FABRICIUS); SMITH, 1858: 73

- Polyrhachis irritabilis* SMITH, 1859: 141 [synonymy by ROGER, 1863: 6]
Polyrhachis sexspinosus var. *esuriens* EMERY, 1897a: 591 [synonymy by BOLTON, 1975: 12]
Polyrhachis sexspinosus var. *rectinota* FOREL, 1911b: 299 [nomen nudum, probably misspelling for *P. sexspinosus* var. *reclinata* EMERY, see above at *P. reclinata* EMERY]
Polyrhachis sexspinosus var. *sericea* KARAWAJEW, 1927: 26 [synonymy by BOLTON, 1975: 12]
Polyrhachis barnardi CLARK, 1928b: 39 [synonymy by KOHOUT & TAYLOR, 1990: 519]
Polyrhachis arcuspinosa DONISTHORPE, 1941a: 140 [synonymy by BOLTON, 1975: 12]
Polyrhachis arcuspinosa waigewensis DONISTHORPE, 1943c: 467 [synonymy by BOLTON, 1975: 12]
Polyrhachis juxtaspinosa DONISTHORPE, 1949b: 417 [synonymy by BOLTON, 1975: 12]

Polyrhachis tschu FOREL

- Polyrhachis tschu* FOREL, 1879: 122
Polyrhachis sexspinosus var. *tschu* FOREL, FOREL, 1909c: 232
Polyrhachis (*Myrmhopla*) *sexspinosus* var. *tschu* FOREL, EMERY, 1925: 191
Polyrhachis (*Myrmatopa*) *tschu* FOREL, CHAPMAN & CAPCO, 1951: 282
Polyrhachis tschu FOREL, BOLTON, 1975: 13

Polyrhachis viehmeyeri-group [fig. 29]

This group was established by EMERY (1925) for *P. hirta* and *P. viehmeyeri*. He described the workers as: "body elongated; back flat, laterally with obtuse borders; petiole as in the *sexspinosus* group (petiole long, anteriorly with an elevated angle in profile, spines inserting distally, spines relatively short and only little diverging), but shorter (and shorter than in the *armata*-group). Head truncate posteriorly; eyes near the posterior end of the head" (own translation). The group was revised by KOHOUT (1990) and characterized by the combination of the following 11 characters: all dorsal surfaces of the body with bristle-like hairs, which are distinctly shorter than the maximum diameter of the eye; dorsa of head, mesosoma and petiole with characteristic vermiculate-rugose sculpturation; mesosomal dorsum bluntly marginate on each side along its entire length; pronotum and propodeum each armed with a pair of spines; pronotal spines flattened dorsally, with anterior and lateral margins acute, their length, direction and degree of elevation usually highly variable within

species; pronotal and propodeal dorsa almost flat, mesonotal dorsum transversely convex with rounded lateral margins; node of petiole with more or less flat dorsum, bearing a pair of widely separated, diverging spines, and without intercalary spines or teeth; eyes strongly convex, almost hemispherical, with numerous short, erect hairs; mandibles very finely longitudinally striate; clypeus with anterior margin medially truncated, posterior margin usually deeply impressed; antennal carinae rather flat, widely separated. A new species was described by KOHOUT (1994b).

The group comprises today ten species.

Distribution: Australia, Indonesia, New Guinea, Solomons, Tibet

Polyrhachis bamaga KOHOUT

Polyrhachis bamaga KOHOUT, 1990: 500

Polyrhachis davydovi KARAWAJEW

Polyrhachis davydovi KARAWAJEW, 1927: 24

Polyrhachis eremita KOHOUT

Polyrhachis eremita KOHOUT, 1990: 502

Polyrhachis greensladei KOHOUT

Polyrhachis greensladei KOHOUT, 1990: 503

Polyrhachis hirta VIEHMEYER

Polyrhachis hirta VIEHMEYER, 1914c: 59

Polyrhachis lama KOHOUT

Polyrhachis lama KOHOUT, 1994b: 137

Polyrhachis loweryi KOHOUT

Polyrhachis loweryi KOHOUT, 1990: 505

Polyrhachis rustica KOHOUT

Polyrhachis rustica KOHOUT, 1990: 505

Polyrhachis stigmatifera KOHOUT

Polyrhachis stigmatifera KOHOUT, 1990: 507

Polyrhachis viehmeyeri EMERY

Polyrhachis viehmeyeri EMERY, 1921a: 19

Species which cannot be associated with a species-group

Polyrhachis lugens MAYR

Polyrhachis lugens MAYR, 1867: 31 [placed by EMERY, 1925: 195 in the *P. dives*-group]

Distribution: Indonesia (Borneo)

Polyrhachis punctata KARAWAJEW

Polyrhachis punctata KARAWAJEW, 1927: 36

Distribution: Indonesia (Java)

Polyrhachis regularis MAYR

Polyrhachis regularis MAYR, 1867: 63 [described on a female; also not associated by EMERY, 1925: 197]

Distribution: Indonesia (Java)

Polyrhachis strictifrons EMERY

Polyrhachis strictifrons EMERY, 1898b: 242 [described on a female; placed by EMERY, 1925: 196 in the *P. dives*-group]

Distribution: Indonesia (Sulawesi)

Polyrhachis syloicola (JERDON)

Formica syloicola JERDON, 1851: 126 [also not associated by EMERY, 1925: 197]

Formica sylvicola JERDON; JERDON, 1854: 108; ROGER, 1863: 6; SMITH, 1871: 310; CHAPMAN & CAPCO, 1951: 298 [misspelling]

Polyrhachis silvicola (JERDON); SMITH, 1857: 59; DALLA TORRE, 1893: 269 [misspelling]

Distribution: India (Hindustan)

Subgenus *Myrmothrinax* FOREL [fig. 30]

Polyrhachis (*Myrmothrinax*) FOREL, 1915a: 107.

Type-species: *Polyrhachis thrinax* ROGER, 1863: 152, by original designation.

Polyrhachis (*Myrmothrinax*) FOREL; SANTSCHI, 1928a: 133 [misspelling]

Polyrhachis (*Evelyna*) DONISTHORPE, 1937a: 273 [synonymy by HUNG, 1967a: 402]
[*Polyrhachis thrinax*-group sensu HUNG, 1967b: 201]

WHEELER (1911) had included the whole "cohors *Polyrhachides camponotiformes*" into his subgenus *Campomyrma*. FOREL (1915) introduced the new subgenus *Myrmothrinax* for EMERY'S (1896) "manipulus *thrinax*" of this "cohors". The first description of this "manipulus", subgenus resp., was given by EMERY (1925): "worker: body slender; thorax marginate; pronotum with shoulders, which generally bear a tooth or very short spine; the spines or teeth of the propodeum are more or less elevated; petiole relatively small with three straight spines, the median being the longest, in *P. unicusps* only one spine is developed; basal segment of gaster as in the subgenus *Campomyrma* (not very large, covering not more than half of the gaster); female: similar to the worker in spination, thorax and petiole" (own translation).

The thorax is marginate, the genae are immarginate. The species are large arboreal weaver ants with the center of speciation in the Indomalayan region.

The subgenus comprises 20 species, which are not divided into species-groups so far.

Distribution: Australia, Bismarck-Archipelago, Burma, India, Indochina, Indonesia, Malaysia, New Guinea, Philippines, Solomons, Singapore, Sri Lanka, Thailand (new), Vietnam

List of species:

Polyrhachis abnormis DONISTHORPE

Polyrhachis abnormis DONISTHORPE, 1948c: 141

Polyrhachis atossa FOREL

Polyrhachis constructor SMITH, 1858: 68 [junior primary homonym of *P. constructor* SMITH, 1857: 60]

Polyrhachis constructor var. *atossa* FOREL, 1913g: 134

Polyrhachis aequicusps WHEELER, 1919: 127 [replacement name for *P. constructor* SMITH; incorrect procedure]

Polyrhachis atossa FOREL; EMERY, 1925: 183 [choosing of the next available name]

Polyrhachis atossa var. *aequicusps* WHEELER; DONISTHORPE, 1932b: 445 [incorrect combination; misspelling]

***Polyrhachis cheesmanae* DONISTHORPE**

Polyrhachis (Campomyrma) cheesmanae DONISTHORPE, 1937a: 273

Polyrhachis (Evelyna) cheesmanae DONISTHORPE, CHAPMAN & CAPCO, 1951: 267 [CHAPMAN & CAPCO confused the species with *P. (Evelyna) cheesmanae* DONISTHORPE, 1943: 459, which now belongs to the subgenus *Campomyrma* and bears the replacement name *P. horacei* HUNG, 1967b: 201]

***Polyrhachis clarkei* DONISTHORPE**

Polyrhachis clarkei DONISTHORPE, 1949a: 502

***Polyrhachis dahliei dahliei* FOREL**

Polyrhachis dahliei FOREL, 1901b: 30

Polyrhachis dahliei FOREL; FOREL, 1909b: 406 [misspelling]

Polyrhachis dahliei FOREL; SANTSCHI, 1920b: 569 [misspelling]

***Polyrhachis dahliei cineta* VIEHMEYER**

Polyrhachis dahliei var. *cineta* VIEHMEYER, 1913: 149 [incorrect original spelling: fossil]

***Polyrhachis dahliei unisculpta* VIEHMEYER**

Polyrhachis dahliei var. *unisculpta* VIEHMEYER, 1914c: 48 [incorrect original spelling]

***Polyrhachis delicata* CRAWLEY**

Polyrhachis delicata CRAWLEY, 1915: 238

Polyrhachis queenslandica EMERY, 1895b: 356 partim [sensu CRAWLEY, 1921: 96]

Polyrhachis lysistrata SANTSCHI, 1920b: 569

[synonymy by KOHOUT, 1994a: 135]

Polyrhachis delicata CRAWLEY; KOHOUT, 1994a: 135

***Polyrhachis durvillei* DONISTHORPE**

Polyrhachis d'urvillei DONISTHORPE, 1938a: 147 [incorrect original spelling]

***Polyrhachis eudora* SMITH**

Polyrhachis eudora SMITH, 1860b: 99

Polyrhachis eudora SMITH; CHAPMAN & CAPCO, 1951: 301 [misspelling]

***Polyrhachis frauenfeldi frauenfeldi* MAYR**

Polyrhachis frauenfeldi MAYR, 1862: 687

Polyrhachis frauenfeldii MAYR; ROGER, 1863: 215 [incorrect subsequent spelling]

***Polyrhachis frauenfeldi sanguinea* FOREL**

Polyrhachis frauenfeldi sanguinea FOREL, 1911a: 393

***Polyrhachis neptunus* SMITH**

Polyrhachis neptunus SMITH, 1865: 69

***Polyrhachis queenslandica* EMERY**

Polyrhachis queenslandica EMERY, 1895b: 356

***Polyrhachis saigonensis* FOREL**

Polyrhachis thrinax r. *saigonensis* FOREL, 1886b: 199

Polyrhachis saigonensis FOREL; FOREL, 1893a: 28

Polyrhachis trinax saigonensis FOREL; ASHMEAD, 1905a: 958 [misspelling]

Polyrhachis trinax sayonensis FOREL; BROWN, 1906: 690 [misspelling]

Polyrhachis saigonensis FOREL; EMERY, 1925: 183

***Polyrhachis sparaxes* SMITH**

Polyrhachis sparaxes SMITH, 1863: 16

***Polyrhachis ternatae* KARAWAJEW**

Polyrhachis ternatae KARAWAJEW, 1933: 105

***Polyrhachis textor textor* SMITH**

Polyrhachis textor SMITH, 1857: 60

***Polyrhachis textor aequalis* FOREL**

Polyrhachis textor var. *aequalis* FOREL, 1910d: 129

***Polyrhachis textor brunneogaster*
DONISTHORPE**

Polyrhachis textor var. *brunneogaster* DONISTHORPE, 1937b: 623

***Polyrhachis textor charpillioni* FOREL**

Polyrhachis textor var. *charpillioni* FOREL,
1911a: 392

***Polyrhachis textor hero* FOREL**

Polyrhachis textor r. *hero* FOREL, 1913g: 135

***Polyrhachis thrinax thrinax* ROGER**

Polyrhachis thrinax ROGER, 1863: 152
Polyrhachis schrinax ROGER; ROTHNEY, 1889:
352 [misspelling]
Polyrhachis trinax ROGER; BROWN, 1906: 690
[misspelling]
Polyrhachis thrinax var. *mucronis* DONISTHORPE,
1942b: 460 [synonymy by BROWN, 1959: 164]

***Polyrhachis thrinax castanea* STITZ**

Polyrhachis thrinax var. *castanea* STITZ, 1923:
136
Polyrhachis thrinax var. *castanella* SANTSCHI,
1928a: 140 [unjustified installation of a re-
placement name for *P. thrinax* var. *castanea*
STITZ, because the name would be preoccupied
by *Camponotus castanea* STITZ, 1923: 128]

***Polyrhachis thrinax inconstans*
VIEHMEYER**

Polyrhachis thrinax inconstans VIEHMEYER,
1916a: 164
Polyrhachis (*Myrmotrinax*) *trinax* var. *inconstans*
VIEHMEYER; SANTSCHI, 1928a: 133 [mis-
spelling]

***Polyrhachis thrinax javanica* MAYR**

Polyrhachis thrinax var. *javanica* MAYR, 1867:
52
Polyrhachis thrinax javana MAYR; FOREL,
1893a: 19; EMERY, 1893c: 269 [nomen nu-
dum, according to CRAWLEY, 1923: 31 a mis-
spelling for *P. thrinax* var. *javanica* MAYR]
Polyrhachis trinax javana MAYR; BROWN, 1906:
690

***Polyrhachis thrinax lancearia* FOREL**

Polyrhachis thrinax var. *lancearius* FOREL,
1893a: 19 + 29

***Polyrhachis thrinax lucida* EMERY**

Polyrhachis thrinax lucidula EMERY, 1893c: 269
[junior homonym of *P. hippomanes lucidula*
EMERY, 1893b: 255]
Polyrhachis thrinax lucida EMERY, 1894a: 74
[replacement name for *P. thrinax lucidula*
EMERY]

***Polyrhachis thrinax overbecki* [nom. nov.]**

Polyrhachis thrinax var. *nigripes* VIEHMEYER,
1916a: 164 [junior homonym of *P. bicolor* var.
nigripes EMERY, 1897a: 592]
[Derivatio nominis: VIEHMEYER described the
subspecies from a series of ants collected by H.
OVERBECK in Singapore]

***Polyrhachis triaena* WHEELER**

Polyrhachis triaena WHEELER, 1919: 127

***Polyrhachis tricusps* ANDRÉ**

Polyrhachis tricusps ANDRÉ, 1887: 284

***Polyrhachis trispinosa* SMITH**

Polyrhachis trispinosus SMITH, 1861: 40

***Polyrhachis unicusps* EMERY**

Polyrhachis unicusps EMERY, 1898b: 240

Subgenus *Polyrhachis* [fig. 31]

Polyrhachis (*Polyrhachis*) SMITH, 1857: 58.
Type-species: *Formica bihamata* DRURY,
1773: 73, by subsequent designation of
WHEELER, 1911: 859.

The subgenus was established by WHEELER (1911) for EMERY's (1896) "cohors *Polyrhachides hamatae*". EMERY (1925) described it as follows: "worker: thorax marginate (*lamellidens*-group) or not (*bihamata*-group); propodeal shoulders elongated into strong and more or less hooked spines; mesonotum generally with a pair of backwards bent spines, which are in *P. lamellidens* a prolongation of the elevated border of that segment; propodeum in the *bihamata*-group with very short spine-like teeth, in the *lamellidens*-group these are prolonged into plate-like appendices as in *P. clypeata* and the other members of the subgenus *Campomyrma*; the mesonotal spines correspond to the

elevated angles of the borders of that segment, described in the subgenus *Myrmatopa*; petiole armed with a pair of very long and strong spines, curved outwards like a fishing-hook; female: pronotum nearly unarmed or with straight spines; without mesonotal spines; scale very high, with a pair of robust spines, which are diverging, but are not formed like a fishing-hook. HUNG (1970) gave 5 characters for the subgenus: pro- and mesonotal spines present in the workers (unique in the genus); petiole columnar, surmounted by two long, hook-shaped spines (his type of petiole is found in *P. furcata*, but here the rest of the characters differ widely); median ocellus present in the workers of *P. bellicosa*, *P. bihamata* and *P. ypsilon*, workers of the first from New Guinea even have two lateral ocelli; in contrary to many other species-groups, the petiole of females is not much alike that of the workers, but is reduced to about one-third in length, and the spines are tuberculate rather than hook-shaped" (own translation).

Genae and thorax are immarginate. The species are nesting in the ground or are arboreal, some in very large colonies with more than 10000 workers. These large non weaving species have their center of speciation in the Indomalayan and Papuan region.

The subgenus comprises nine species. It was revised by HUNG (1970). KOHOUT (1988) added several new species from New Guinea. Already EMERY (1925: 182) distinguished the *P. lamellidens*-group (with *P. craddocki* and *P. lamellidens*) and the *P. bihamata*-group (see above).

Distribution: Australia, Bismarck-Archipelago, Burma, China, Hong Kong, India, Indonesia, Japan, Korea, Laos, Malaysia, New Guinea, Oceania, Philippines, Singapore, Sri Lanka, Taiwan, Thailand

Polyrhachis lamellidens-group

According to EMERY (1925) the workers of this group are characterized by: "thorax marginate; borders of mesonotum elevated and prolonged into a pair of backwards curved spines; propodeum with plate-like appendages" (own translation).

Polyrhachis craddocki BINGHAM

Polyrhachis craddocki BINGHAM, 1903: 403

Polyrhachis craddockii BINGHAM; HUNG, 1970: 31 [incorrect subsequent spelling]

Polyrhachis lamellidens SMITH

Polyrhachis lamellidens SMITH, 1874: 403

Polyrhachis lamelliden SMITH; CHAPMAN & CAPCO, 1951: 304 [misspelling]

Polyrhachis bihamata-group

EMERY (1925) characterized the workers as: "thorax immarginate; mesonotum with a pair of spines, which are curved backwards; propodeum with very small spine-like teeth" (own translation).

Polyrhachis bellicosa SMITH

Polyrhachis bellicosus SMITH, 1859: 142

Polyrhachis bihamata var. *bellicosus* SMITH; MAYR, 1862: 677

Polyrhachis bellicosa var. *crudelis* EMERY,

1887a: 238 [synonymy by HUNG, 1970: 5]

Polyrhachis bellicosa SMITH; DALLA TORRE, 1893: 259

Polyrhachis bihamata (DRURY)

Formica bihamata DRURY, 1773: 73

Formica affinis LE GUILLOU, 1842: 314 [synonymy by MAYR, 1872: 139]

Polyrhachis bihamata (DRURY); SMITH, 1857: 59

Polyrhachis affinis (LE GUILLOU); MAYR, 1863a: 443

Polyrhachis ypsilon EMERY, 1887a: 239 partim [sensu DALLA TORRE, 1893: 271]

Polyrhachis bihamata var. *perplexa* SANTSCHI, 1925: 92 [synonymy by HUNG, 1970: 16]

Polyrhachis bihamata var. *minor* KARAWAJEW,

1927: 12 [junior homonym of *P. armata* var. *minor* FOREL, 1886a: 241; synonymy by HUNG, 1970: 16]

Polyrhachis bihamata var. *tonsilis* SANTSCHI, 1928a: 133 [synonymy by HUNG, 1970: 16]

Polyrhachis erosispina EMERY

Polyrhachis bellicosa SMITH, 1859: 142 partim [sensu HUNG, 1970: 5]

Polyrhachis bellicosa var. *erosispina* EMERY, 1900b: 713

Polyrhachis erosispina EMERY; KOHOUT, 1988b: 419

***Polyrhachis mindanaensis* EMERY**

Polyrhachis ypsilon var. *mindanaensis* EMERY, 1923: 62

Polyrhachis mindanaensis EMERY; HUNG, 1970: 20

***Polyrhachis montana* HUNG**

Polyrhachis montana HUNG, 1970: 23

***Polyrhachis taylora* KOHOUT**

Polyrhachis taylora KOHOUT, 1988b: 422

***Polyrhachis ypsilon* EMERY**

Formica bihamata DRURY, 1773: 73 partim [sensu SMITH, 1858: 58]

Polyrhachis ypsilon EMERY, 1887a: 239

Polyrhachis ypsilon var. *victoris* SANTSCHI, 1925: 93 [synonymy by HUNG, 1970: 19]

Polyrhachis ypsilon aber. *synacantha* SANTSCHI, 1933: 2 [synonymy by HUNG, 1970: 19]

Polyrhachis ypsilon var. *vecticortis* SANTSCHI; CHAPMAN & CAPCO, 1951: 304 [misspelling for *P. ypsilon* var. *victoris* SANTSCHI]

Incertae sedis

Of these species only females were described. At the present stage of knowledge, they cannot be associated with anyone of the subgenera.

***Polyrhachis agesilas* FOREL**

Polyrhachis agesilas FOREL, 1913g: 137 [EMERY, 1925: 209 also did not associate this species]

Polyrhachis agesilas FOREL; CHAPMAN & CAPCO, 1951: 304 [misspelling]

Distribution: Indonesia (Java)

***Polyrhachis alexandri* KARAWAJEW**

Polyrhachis alexandri KARAWAJEW, 1906: 375

Polyrhachis (*Myrmhopla*) *alexandri* KARAWAJEW; EMERY, 1925: 192 [association with the *P. armata*-group]

Distribution: Indonesia (Java)

***Polyrhachis alphenus* SMITH**

Polyrhachis alphenus SMITH, 1860b: 100

Polyrhachis (*Myrmhopla*) *alphenus* SMITH; EMERY, 1925: 197 [not associated with a species-group]

Distribution: Indonesia (Batchian)

***Polyrhachis castaneiventris* SMITH**

Polyrhachis castaneiventris SMITH, 1858: 67

Polyrhachis (*Myrmhopla*) *castaneiventris* SMITH; EMERY, 1925: 197 [not associated with a species-group]

Distribution: Indonesia (Borneo)

***Polyrhachis constructor* SMITH**

Polyrhachis constructor SMITH, 1857: 60 [EMERY, 1925: 209 also did not associate this species]

Distribution: Indonesia (Borneo)

Excluded species***Camponotus* (*Orthonotomyrmex*) *selene* selene (EMERY)**

Polyrhachis selene EMERY, 1889: 518

Camponotus selene (EMERY); EMERY, 1896b: 763

Camponotus (*Myrmorhachis*) *selene* (EMERY); FOREL, 1912d: 92

Camponotus (*Myrmacantha*) *selene* (EMERY); EMERY, 1920: 258

Camponotus (*Orthonotomyrmex*) *selene* (EMERY); EMERY, 1925: 125

***Camponotus* (*Orthonotomyrmex*) *selene* obtusata (EMERY)**

Polyrhachis selene obtusata EMERY, 1895a: 480

Camponotus (*Orthonotomyrmex*) *selene obtusata* (EMERY); EMERY, 1925: 125

***Diacamma rugosum* (LE GUILLOU)**

Ponera rugosum LE GUILLOU, 1842: 318

Diacamma rugosum geometricum var. *anceps* EMERY, 1897c: 155 [name not available]

Polyrhachis bispinosa Matsumura in Kuroiwa, 1908: 2 [synonymy by Yasumatsu, 1940: 67 with *Diacamma rugosum geometricum* var. *anceps* EMERY]

Dolichoderus bispinosus* (OLIVIER)Formica bispinosa* OLIVIER, 1792: 502*Polyrhachis arboricola* NORTON, 1868b: 4 [synonymy by EMERY, 1912: 9 with *Dolichoderus (Monacis) bispinosus* (OLIVIER); synonymy by KEMPF, 1959: 240 with *Monacis bispinosa* (OLIVIER)]*Dolichoderus bispinosus* (OLIVIER); FOREL, 1878b: 386*Dolichoderus (Monacis) bispinosus* (OLIVIER); EMERY, 1912: 9*Monacis bispinosa* (OLIVIER); KEMPF, 1959: 240*Dolichoderus bispinosus* (OLIVIER); SHATTUCK, 1992: 77 [stat. rev., see there for the history of that genus, but this species is not mentioned in the study]***Dolichoderus cuspidatus* (SMITH)***Polyrhachis cuspidatus* SMITH, 1857: 63*Dolichoderus cuspidatus* (SMITH); MAYR, 1870: 955***Dolichoderus rugosus* (SMITH)***Polyrhachis rugosus* SMITH, 1858: 74*Hypoclinea rugosus* (SMITH); MAYR, 1872: 144*Dolichoderus rugosus* (SMITH); MAYR, 1886: 357***Dolichoderus scabridus* ROGER***Dolichoderus scabridus* ROGER, 1862: 244*Polyrhachis foveolatus* LOWNE, 1865: 334[synonymy by MAYR, 1868b: 61 with *Hypoclinea* sp., by MAYR, 1870: 953 + 955 with *Hypoclinea scabrida* (ROGER)]*Hypoclinea scabrida* (ROGER); MAYR, 1870: 953 + 955***Dolichoderus spinicollis* (LATREILLE)***Formica spinicollis* LATREILLE, 1817: 99*Polyrhachis spinicollis* (LATREILLE); SMITH, 1858: 74*Polyrhachis bispinosus* SMITH, 1858: 74 [synonymy by DALLA TORRE, 1893: 161 with *Dolichoderus spinicollis* (LATREILLE)]*Monacis spinicollis* (LATREILLE) [ROGER, 1862: 243 remarked: "Dieses (neue) Genus umfaßt einige Arten, die bisher zu *Polyrhachis* gerechnet wurden...", but did not list species]*Hypoclinea bispinosus* (SMITH); MAYR, 1863a: 424*Dolichoderus spinicollis* (LATREILLE); DALLA TORRE, 1893: 161*Dolichoderus (Monacis) spinicollis* (LATREILLE); EMERY, 1912: 10*Dolichoderus spinicollis* (LATREILLE); SHATTUCK, 1992: 77***Echinopla serrata* (SMITH) [comb. rev.]***Polyrhachis serratus* SMITH, 1859: 140*Echinopla serrata* (SMITH); DONISTHORPE, 1932b: 453*Polyrhachis serrata* SMITH; CHAPMAN & CAPCO, 1951: 257***Echinopla striata* SMITH***Echinopla striata* SMITH, 1857: 80*Polyrhachis aciculatus* SMITH, 1858: 70

[synonymy by EMERY, 1900b: 721; synonymy only assumed by CHAPMAN & CAPCO, 1951: 284]

Gnamptogenys strigata* (NORTON)Polyrhachis strigata* NORTON, 1868b: 4*Gnamptogenys strigata* (NORTON); KEMPF, 1972: 111 + 115***Phasmomyrme (Myrmorhachis) paradoxa* (ANDRÉ)***Polyrhachis paradoxa* ANDRÉ, 1892: 46*Camponotus polyrhachioides* EMERY, 1898a: 227 [replacement name for *Polyrhachis paradoxa* ANDRÉ without argumentation]*Camponotus (Myrmorhachis) polyrhachioides* EMERY; EMERY, 1912: 92 [synonymy by EMERY, 1925: 58]*Camponotus (Myrmacantha) polyrhachioides* EMERY; EMERY, 1920: 258 [synonymy by EMERY, 1925: 58]*Phasmomyrme (Myrmorhachis) paradoxa* (ANDRÉ); EMERY, 1925: 58**Nomina nuda*****Myrma hystrix* BILLBERG***Myrma hystrix* BILLBERG, 1820: 104***Polyrhachis setulosus* SMITH***Polyrhachis setulosus* SMITH; RADOSZKOVSKY, 1881: 197 [nomen nudum, declaration by WHEELER, 1922: 992]

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(No attempt was made, to include all general textbooks which only repeat already published studies. Articles marked with one asterisk were not seen by the author and may have therefore uncomplete bibliographical data, articles marked with two asterisks are cited in this study but do not mention *Polyrhachis* ants).

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Fig. 1: *Polyrhachis* (*Aulacomyrma*) sp.



Fig. 2: *Polyrhachis* (*Camponomyrma*) sp.



Fig. 3: *Polyrhachis* (*Chalcidomyrma*) sp.



Fig. 4: *Polyrhachis* (*Cycloomyrma*)
debilis johannsi Mann, 1919



Fig. 5: *Polyrhachis* (*Hagioomyrma*)
denticulata Kaszabow, 1927



Fig. 6: *Polyrhachis* (*Hedomyrma*)
sarverii Foel, 1893b



Fig. 7: *Polyrhachis* (*Hemiptera*) sp.

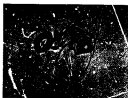


Fig. 8: *Polyrhachis* (*Myrmica*)
mormis Smith, 1858



Fig. 9: *Polyrhachis* (*Myrmica*)
nigropilosa Mayr, 1872



Fig. 10: *Polyrhachis* (*Myrmecopis*)
schang Forel, 1879



Fig. 11: *Polyrhachis* (*Myrmecopis*)
[*arachee*-group]
hodgei Forel, 1902a



Fig. 12: *Polyrhachis* (*Myrmecopis*)
[*arachee*-group]
armata (Le Gallou, 1841)

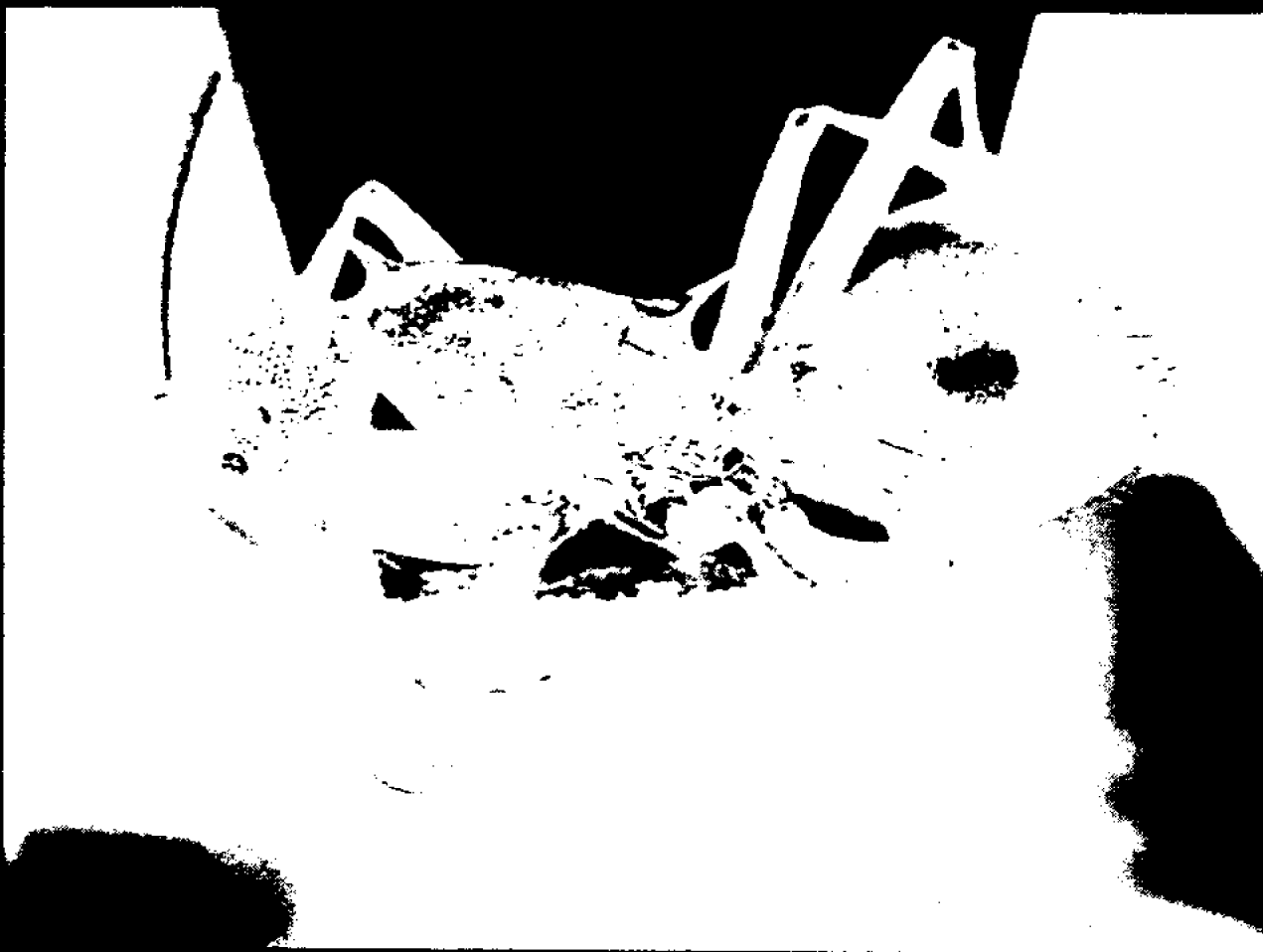


Fig. 13: *Polyrhachis* (*Myrmhopla*)
[*armata*-group]
plato Forel, 1911a



Fig. 14: *Polyrhachis* (*Myrmhopla*)
[*armata*-group]
tibialis parsis Emery, 1900b



Fig. 15: *Polyrhachis* (*Myrmhopla*)
[*bicolor*-group]
bicolor aurinasis Forel, 1901a



Fig. 16: *Polyrhachis* (*Myrmhopla*)
[*cephalotes*-group]
cephalotes Emery, 1893a

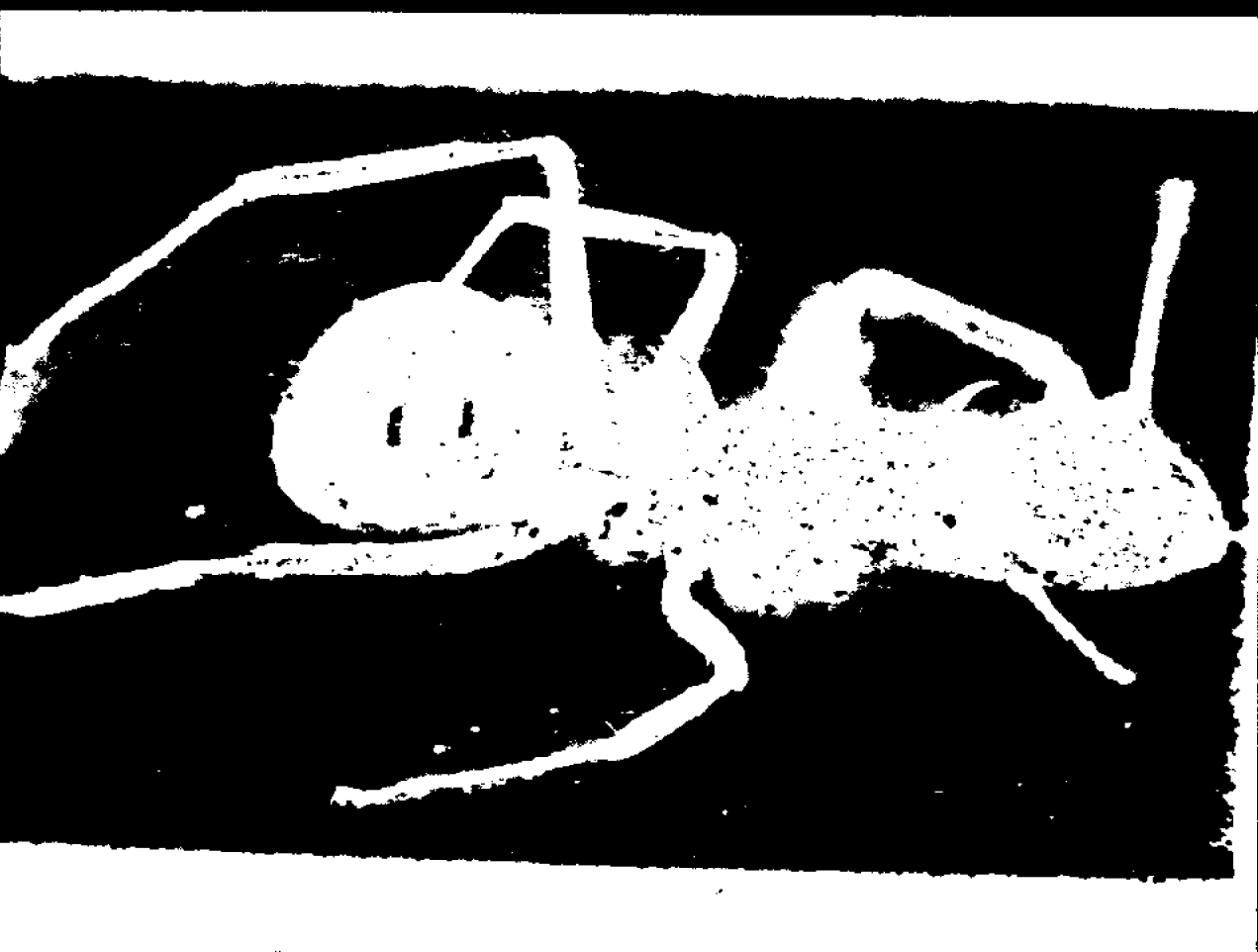


Fig. 17: *Polyrhachis* (*Myrmhopla*)
[*cleophanes*-group]
cleophanes Smith, 1861b



Fig. 18: *Polyrhachis* (*Myrmhopla*)
[*cryptoceroides*-group]
cryptoceroides Emery, 1887a



Fig. 19: *Polyrhachis* (*Myrmekopsis*)
[*daphne*-group]
daphne Wheeler, 1919



Fig. 20: *Polyrhachis* (*Myrmekopsis*)
[*diva*-group]
diva Belli Förel, 1912a



Fig. 21: *Polyrhachis* (*Myrmekopsis*)
[*flavoflagellata*-group]
flavoflagellata Karawajew, 1927



Fig. 22: *Polyrhachis* (*Myrmekopsis*)
[*fuscata*-group]
fuscata Smith, 1858



Fig. 23: *Polyrhachis* (*Myrmekopsis*)
[*hector*-group]
hector Smith, 1857



Fig. 24: *Polyrhachis* (*Myrmekopsis*)
[*macronota*-group]
dipanisa Förel, 1911d



Fig. 25: *Polyrhachis* (*Myrmecopis*)
[*macronotus*-group]
keratiformis Kaszabowicz, 1927



Fig. 26: *Polyrhachis* (*Myrmecopis*)
[*nigricapsa*-group]
croceiventris Emery, 1900a



Fig. 27: *Polyrhachis* (*Myrmecopis*)
[*ochracea*-group]
ochracea Kaszabowicz, 1927



Fig. 28: *Polyrhachis* (*Myrmecopis*)
[*sculptator*-group]
argyrea Menozzi, 1925



Fig. 29: *Polyrhachis* (*Myrmecopis*)
[*vishnuyi*-group]
viridis Vishnuyev, 1913b



Fig. 30: *Polyrhachis* (*Myrmecopis*)
[*thirax*-group]
thirax Roger, 1863

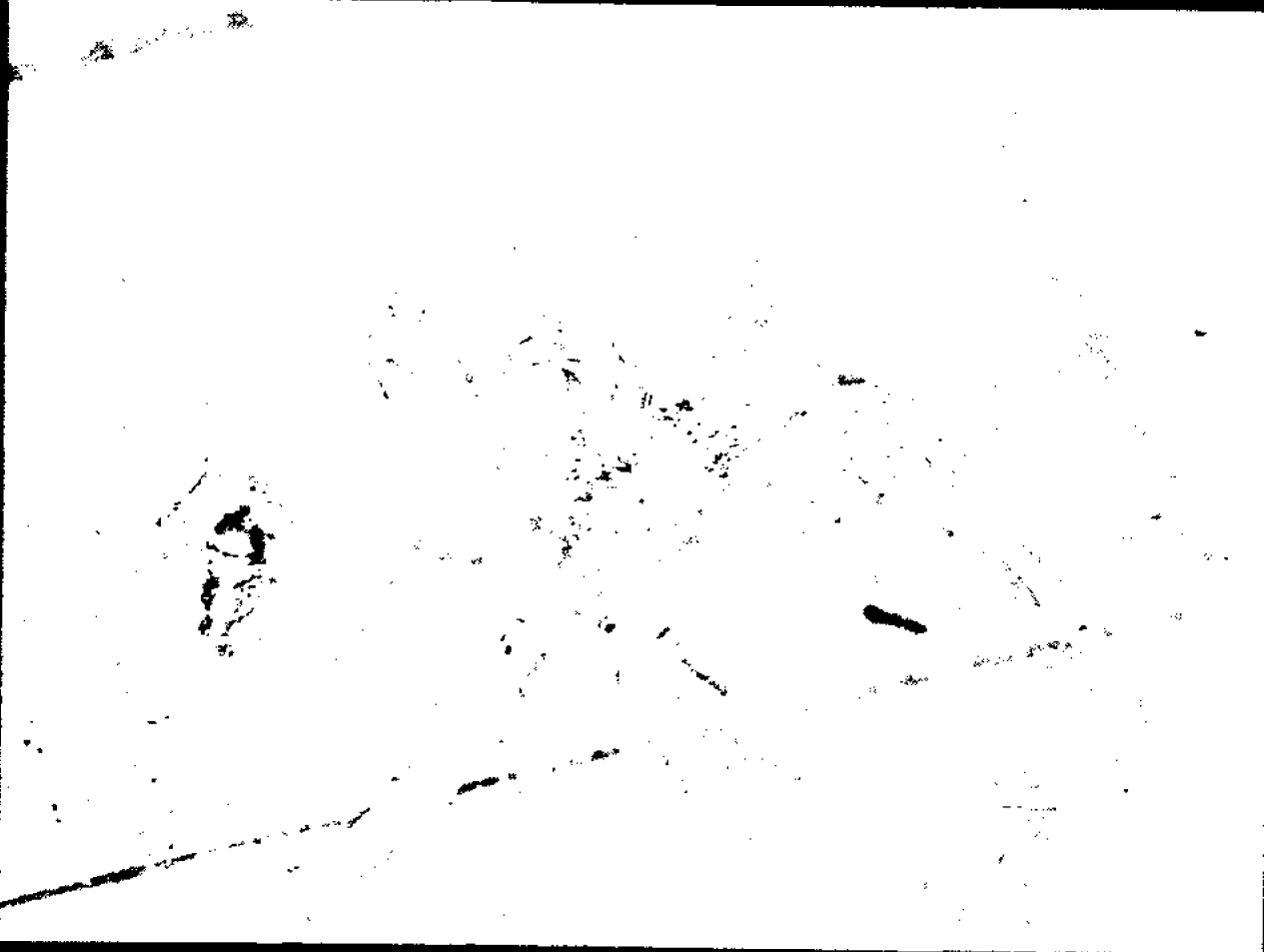


Fig. 31: *Polyrhachis* (*Polyrhachis*)
[*bihamata*-group]
bihamata (Drury, 1773)

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